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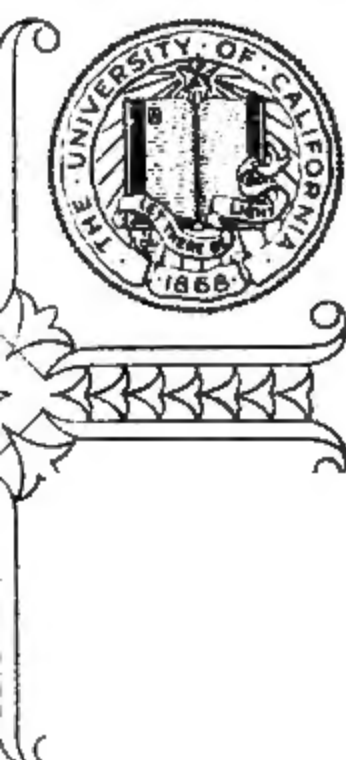
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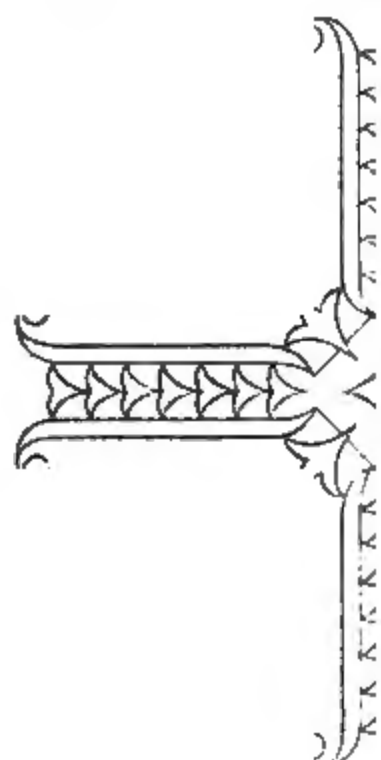
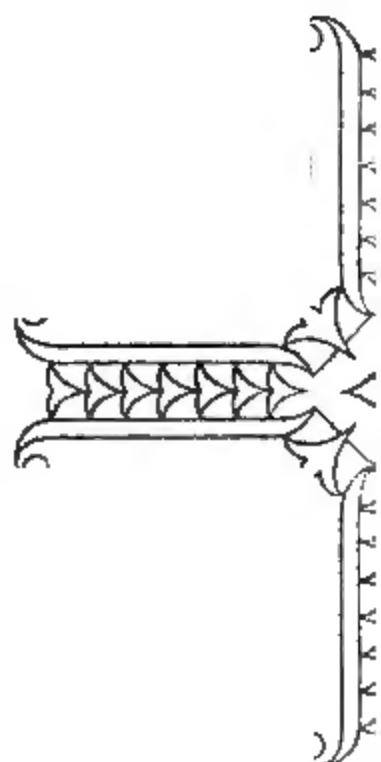
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NOVEMBER, 1914

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MONTHLY RECORD OF CURRENT EDUCATIONAL PUBLICATIONS.

CONTENTS.—Introductory notes—Publications of associations—Educational history and biography—Current educational conditions—Pedagogics and didactics—Educational psychology, Child study—Special methods of instruction—Special subjects of curriculum—Kindergarten and primary school—Rural education—Secondary education—Teachers: Training and professional status—Higher education—School administration—School management—School architecture—School hygiene and sanitation—Sex hygiene—Eugenics—Physical education—Play and playgrounds—Social aspects of education—Child welfare—Moral education—Religious education—Manual and vocational training—Vocational guidance—Folk high schools—Home economics—Commercial education—Education of women—Africans and Orientals—Education of deaf—Education of defectives—Libraries and reading—Bulletin of the Bureau of Education.

INTRODUCTORY NOTES.

Some notable books of the month are the following, the numbers in parentheses referring to the numbers of the full entries in this bulletin: Kerschensteiner, The schools and the nation, authorized translation (1490); Wallin, Mental health of the school child (1504); Kennedy, The Batavia system (1509); Howell, Pedagogy of arithmetic (1522); Klapper, Teaching children to read (1524); White and Davis, Rural schools in Texas (1544); Learned, The oberlehrer (1553); Fitch, The college course and the preparation for life (1560); Phelps Stokes, Memorials of eminent Yale men (1568); Morehouse, Discipline of the school (1578); Taylor, Handbook of vocational education (1625); Goddard, School training of defective children (1647).

The addresses of most of the periodicals represented in this number may be found by reference to the list at the end of this record for September, 1914.

Only publications of the Bureau of Education are available for free distribution by this office. All others here listed may ordinarily be obtained from their respective publishers, either directly or through a dealer, or in the case of an association publication, from the secretary of the issuing organization.

Books, pamphlets, etc., intended for inclusion in this record should be sent to the library of the Bureau of Education, Washington, D. C.

PUBLICATIONS OF ASSOCIATIONS.

1470. Association of men teachers and principals of the city of New York. Modern tendencies in education. Truancy and delinquency. [New York, the Singer press, 1914?] 39p. 8°.

Contains: 1. G. D. Strayer: The application of scientific method to the problems of education the most important modern tendency, p. 5-8. 2. H. H. Horne: Educational tendencies, p. 9-10. 3. W. H. Allen: Modern tendencies in education, p. 11. 4. Gustave Straubenmüller: Truancy and delinquency, p. 14-18. 5. H. W. Nudd: Truancy and delinquency, p. 24-27. 6. Important changes in the compulsory education law, p. 36-39.

1471. Conference for education in the South and Southern educational association. Proceedings of the seventeenth Conference for education in the South and the twenty-fifth annual meeting of the Southern educational association. Joint session, Louisville, Ky., April 7-10, 1914. 381p. 8°.

Contains: *Conference for education in the South*—1. Mary E. Frayser: Report of the Committee on household management, p. 33-38. 2. Susie V. Powell: Helping the community through the school, p. 54-57. 3. O. B. Martin: Boys' and girls' demonstration work in the Southern States, p. 57-62. 4. W. T. Brown: Training leaders for rural life, p. 102-5. 5. J. A. Ferrell: Intensive community health work, p. 183-86. 6. W. S. Rankin: The community aspect of the health problem, p. 187-95. *Southern educational association*—7. B. R. Payne: The training of teachers in the South, p. 221-33. 8. J. H. Highsmith: Teacher training in private and denominational colleges, p. 233-38. 9. A. L. Rhoton: The responsibility and opportunity of the private and denominational college in the training of teachers, p. 238-42. 10. Mrs. D. Breckinridge: The city school as a social center, p. 250-53. 11. W. Lou Gray: What should a superintendent or supervising teacher do when visiting a school? p. 255-58. 12. P. P. Claxton: [Improvement of rural schools] p. 270-71. 13. F. M. Bralley: How may educational institutions best keep in touch with their graduates and former students in order to assist them in local community development? p. 281-86. 14. Jessie Field: Leadership for rural communities from our institutions of higher learning, p. 291-92. 15. W. G. Frost: What the college can do for the community, p. 294-96. 16. R. B. Daniel: Some experiments in vocational education in a mill community, p. 302-5. 17. J. A. Baldwin: Statement of educational conditions in Southern cotton mill communities, p. 306-14. 18. Elizabeth G. Holt: The teaching of home-making in a mill community, p. 317-20. 19. R. M. Kennedy: The county library movement, p. 322-29. 20. Pearl W. Kelly: How the State may aid school libraries, p. 329-33. 21. W. Lou Gray: Co-operation in building a country school system, p. 335-39. 22. Mabel C. Williams: How can the town library serve the country community? p. 339-42.

1472. Dental faculties association of American universities. Proceedings of the sixth annual meeting held at Minneapolis, Minn., March 20 and 21, 1914. Philadelphia, Press of the "Dental cosmos," 1914. 24p. 8°.

1473. Georgia educational association. Proceedings and addresses of the forty-eighth annual meeting . . . Macon, Ga., April 23-25, 1914. 103p. 8°.
(C. L. Smith, secretary, LaGrange, Ga.)

Contains: 1. M. L. Brittain: Georgia education—a survey, p. 19-26. 2. W. K. Tate: The relation of the rural school to the economic development of the South, p. 26-28. 3. C. R. McCrory: State publication of school books, p. 28-39. 4. Otis Ashmore: Discussion of the State manufacture and control of school texts, p. 39-43. 5. J. H. Phillips: The social realm in education, p. 43-53. 6. E. R. Park: The health of the pupil, p. 53-59. 7. Carol P. Oppenheimer: Relation of the kindergarten to primary school, p. 71-75. 8. L. B. Evans: State manufacture and control of text-books, p. 78-88.

Dr. Phillips's paper has been reprinted in pamphlet form under title of "The social ideal in education."

1474. Nationaler deutschamerikanischer lehrerbund. Protokoll der 42. jahres versammlung, Chicago, Ill., 30. Juni bis 8. Juli 1914. Monatshefte für deutsche sprache und pädagogik, 15: 234-44, September 1914.

The number also contains: 1. Leo Stern: Ansprache des bundespräsidenten, p. 244-46. 2. Oscar Burckhardt: Die amerikanische bühne als bildungsfaktor, p. 246-57.

1475. Northwestern Wisconsin teachers' association. ~~Monograph-souvenir~~ of the twenty-third annual meeting, also including a condensed history of the association and a journal of the proceedings and addresses of the 1913 meeting, held at Eau Claire, Wis., October 17-18, 1913. Eau Claire, Wis., Eau Claire press co. [1914?] 68p. 8°. (Matilda Miller, secretary, Eau Claire, Wis.)

Contains: 1. W. A. Clark: [Defense of the public schools] p. 26-32. 2. John Phelan: The problem of the rural school, p. 36-42. 3. Frances Cleary: The Latin teacher's special duty, p. 43-46.

EDUCATIONAL HISTORY AND BIOGRAPHY.

1476. Fitzpatrick, Frank A. James M. Greenwood: an appreciation. Educational review, 48: 288-93, October 1914.

A biographical sketch of the career of Prof. Greenwood, superintendent of schools at Kansas city, from 1874 until August 1, 1914.

1477. Greenstone, Julius H. Jewish education in the United States. In The American Jewish year book, 5675, 1914-1915, ed. by H. Bernstein for the American Jewish committee. Philadelphia, The Jewish publication society of America, 1914. p. 90-127.

A forceful presentation of the things already accomplished in the field of Jewish education, and the important problems still to be worked out.

1478. Spranger, Eduard. Der zusammenhang von politik und pädagogik in der neuzeit, umrisse zu einer geschichte der deutschen schulgesetzgebung und schulverfassung. Deutsche schule, 18: 13-21, 73-80, ———, 290-99, 356-66, January, February, March, May, June 1914.

1479. Thomas, Calvin. Rudolf Tombo, Jr. Columbia university quarterly, 16: 357-64, September 1914.

A sketch of his life and work.

CURRENT EDUCATIONAL CONDITIONS.

1480. Educational writings. Elementary school journal, 15: 68-81, October 1914.

A review of the periodicals devoted to education, also the educational bulletins of the federal government and private foundations. Commends the work of the Bureau of education.

1481. Graue, ———. Wandervogel-bestrebungen. Pädagogische warte, 21: 713-17, June 15, 1914.

Criticism and appreciation of the work of the "Wandervogel" young people's league. Also discussed by K. E. Brachwitz, Pädagogische warte, 21: 905-7, August 1, 1914; and by Eberhard, in Allgemeine deutsche lehrerzeitung, 66: 339-43, August 28, 1914.

1482. Jahrbuch der königlichen preussischen auskunftsstelle für schulwesen. Erster jahrgang, 1913. Berlin, Ernst Siegfried Mittler und sohn, 1914. 424 p. 4°.

CONTENTS.—I. Übersicht über die staatlichen und staatlich anerkannten unterrichtsanstalten in Preussen. A. Für die männliche jugend. B. Für die weibliche jugend. C. Für knaben und mädchen. Anhang: Deutsche schulen ausserhalb des Deutschen Reiches. p. 1-117.—II. Verzeichnis der an den höheren lehranstalten Preussens eingeführten schulbücher (1906-1912) p. 118-26.—III. Empfehlenswerte lehrmittel für volks- und höhere schulen, p. 127-313.—IV. Schulstreit oder schulfriede? Eine prüfung des bestandes und der zukunftsziele des höheren schulwesens; von Professor Dr. Paul Förster, p. 314-42.—V. Volkshochschulen mit besonderer berücksichtigung der Humboldt-akademie und der Freien hochschule; von Dr. Oscar Stillich, p. 343-56.—VI. Gesundheitspflege und leibesübungen, spiel und sport in der volksschule; von Dr. Luckow, p. 357-76.—VII. Zur schularztfrage in der fortbildungsschule; von W. Schulze, p. 377-82.—VIII. Zwei neuere schulen in Berlin-Steglitz;

von Müller, p. 283-94.—IX. Elektrische experimentier-anlagen; von G. Quaink, p. 395-402.—X. Statistisches über das schulwesen des Deutschen Reiches, p. 403-24.

Dr. Förster's article (IV) proposes radical changes in organization and conception of aims of the German educational system, which would, in many respects, approximate it to the American system and meet modern demands and criticism.

1483. Kerschensteiner, Georg M. A. Die nationale einheitsschule. Säemann; monatschrift für jugendbildung und jugendkunde, July 1914, p. 266-72.

Report of an address delivered at the Kiel (1914) meeting of German teachers. A contribution to the prevalent discussion of proposals and counter-proposals to meet the growing demand for a differentiation of schools and courses of study and their adjustment to the pupil's individual abilities and needs, without surrendering the realization of civic and national aims.

1484. Messer, August. Förster contra Wyneken. Internationale monatschrift für wissenschaft, kunst und technik, 8:1393-1403, August 1914.

A vigorous reply, by a professor of philosophy at the University of Giessen, to Friedrich W. Förster's (professor emeritus, University of Vienna) criticism (in Süddeutsche monatshefte, May 1914, p. 249-63) of Gustav Adolf Wyneken's book "Schule und jugendkultur," Jena 1914. The author declares Förster's depreciatory criticism of Wyneken's book to be unfair and subjective, while he charges Förster with counseling the abandonment of the principle of inner freedom and autonomy, which is of central importance in Wyneken's work, for the principle of authority. Wyneken's book and his propagandist activity have become a storm center of pedagogical discussion.

1485. Pädagogische jahresschau über das volksschulwesen im jahre 1913. In gemeinschaft . . . hrsg. von E. Clausnitzer. VIII. Band. Leipzig und Berlin, B. G. Teubner, 1914. 458 p. 8°

1486. Patterson, Herbert P. Ideals in present-day education. Educational review, 48:254-65, October 1914.

Discusses the various ideals influencing education—scientific, vocational, ethical, political, etc. The task before educators is to coordinate these ideals into one harmonious system.

1487. Strunsky, Simeon. School. Atlantic monthly, 114:546-55, October 1914.

A humorously critical article on modern school methods.

PEDAGOGICS AND DIDACTICS.

1488. Babo, M. von. Die zukunftsschule. Ein praktischer vorschlag für eine völlige neugestaltung unseres schulwesens. Stuttgart, W. Spemann, 1914. 205 p. 8°.

1489. Classroom methods and devices. Elementary school journal, 15:82-95, October 1914.

A symposium. Discusses: "A sixth-grade English unit," by Edith P. Parker; "Drill in multiplication," by James O. Lucas; "A course in agriculture;" and "Penmanship recommendations."

Mr. Lucas has found it advantageous "to substitute for drill in the multiplication tables a series of problems." Presents an example.

1490. Kerschensteiner, Georg M. A. The schools and the nation . . . authorized translation by C. K. Ogden . . . with an introduction by Viscount Haldane. London, Macmillan and co., limited, 1914. xxiv, 851 p. illus. 12°

Tr. from "Grundfragen der schulorganisation." Preface by author.

1491. Lyans, C. K. The doctrine of formal discipline. Pedagogical seminary, 21:343-93, September 1914.

Bibliography: p. 892-98.

1492. Pfordten, Otto von der. Das gefühl und die pädagogik. Heidelberg, C. Winter, 1914. 133 p. 8°.

1493. Sanders, Frederic W. The organization of education. Education, 35: 98-106, October 1914.

Continued from May number. Treats of the secondary transition department of the school for pubescents. Outlines a curriculum for the required courses.

EDUCATIONAL PSYCHOLOGY, CHILD STUDY.

1494. Ballou, Frank W. The significance of educational measurement. Pittsburgh school bulletin, 8: 2002-5, September 1914.

1495. Brigham, Carl C. An experimental critique of the Binet-Simon scale. Journal of educational psychology, 5: 439-48, October 1914.

"The author applied the Binet tests to 309 children in the first six grades of the Princeton model school. The scale was found to measure the intelligence of children from seven to eleven years of age with at least 96 per cent. efficiency, and it also proved very sensitive in indicating individual differences in groups of children of the same age."

1496. Dallenbach, Karl M. The effect of practice upon visual apprehension in school children. Journal of educational psychology, 5: 321-34, 387-404, June, September 1914.

"With children practice increases the ability to apprehend visually not only the material presented, but other material more or less dissimilar in kind."

1497. Hill, David Spence. Minor studies in learning and relearning. Journal of educational psychology, 5: 375-86, September 1914.

Read before Section H of the American association for the advancement of science, Atlanta, Ga., January 1, 1914.

"The author presents the results of experiments with mirror drawing, a class experiment on periods of learning in which the substitution test was employed, and a new form of the cancellation test with the results of its use."

1498. Kirkpatrick, E. A. An experiment in memorizing versus incidental learning. Journal of educational psychology, 5: 405-12, September 1914.

"The author believes that time is wasted in memorizing the multiplication tables, and presents experimental evidence to show that better results are gained by placing in the children's hands multiplication sheets which they use in written multiplication, and thus gradually come to know the results of the combinations by repeated use."

1499. Kuno, Mrs. Emma E. How a knowledge of the characteristics of the adolescent boy may aid one in directing his conduct. Pedagogical seminary, 21: 425-39, September 1914.

1500. Mead, Cyrus D. Height and weight of children in relation to general intelligence. Pedagogical seminary, 21: 394-406, September 1914.

Bibliography: p. 406.

1501. Rowe, E. C. Five hundred forty-seven white and two hundred sixty-eight Indian children tested by the Binet-Simon tests. Pedagogical seminary, 21: 454-68, September 1914.

A number of tables are given showing the details of the study.

1502. Stern, William. Eigenschaften der frühkindlichen phantasie. Zeitschrift für pädagogische psychologie und experimentelle pädagogik, 15: 305-13, June 1914.

Foot-note states: "Entnommen dem in kürze erscheinenden werke 'Psychologie der frühen kindheit bis zum 6. lebensjahre'; von Prof. W. Stern, mit benutzung ungedruckter tagebücher von Klara Stern. Verlag von Quelle & Meyer, Leipzig."

1503. Taylor, E. H. A comparison of the arithmetical abilities of rural and city school children. Journal of educational psychology, 5: 461-68, October 1914.

"Read before the Child study section of the Illinois State teachers' association, December 1913."

~~As measured by the Courtis tests, series A, rural school children are from one to two grades behind city school children. Four months of specific drill materially reduced this difference.~~

1504. Wallin, John Edward Wallace. The mental health of the school child, the psycho-educational clinic in relation to child welfare; contributions to a new science of orthophrenics and orthosomatics. New Haven, Yale university press; [etc., etc.] 1914. xiii, 463 p. diagrs. 8°

"Most of the chapters of the book are reprinted ... from various periodicals."—Pref.

1505. Winch, W. H. Further experimental researches on learning to spell. *Journal of educational psychology*, 5: 449-60, October 1914.

"Previous researches in a boys' school with pupils of a rather low grade of mental development showed that it was of advantage to present the words by a method which combined as many stimuli as possible. The present experiment shows that with girls of high mental ability the method of silent visual study is superior."

SPECIAL METHODS OF INSTRUCTION.

1506. Francis W. Parker school, *Chicago*. Year book, vol. III, June 1914. Expression as a means of training motive. Chicago, Francis W. Parker school, 1914. 188 p. illus. 8°

Contains articles on following topics: (1) Play as fundamental in education, (2) Oral reading, (3) The value, place, and use of the dramatic instinct in the education of young people, (4) A teachers' meeting, (5) Clay modeling, (6) Metal working, (7) Making a rug, (8) The social application of painting and drawing.

1507. Hendley, Flora L. A practical solution of the moving picture problem. *Teachers magazine*, 37: 50-51, October 1914.

In using moving pictures in school work, the chief problem is how to bring the pictures to the children, or the children to the pictures. This article shows how this problem was successfully solved by some schools of Washington, D. C.

1508. Johnson, W. Templeton. The Parker school in the open air at San Diego, California. *Pittsburgh school bulletin*, 8: 2012-16, September 1914.

1509. Kennedy, John. The Batavia system of individual instruction. Syracuse, N. Y., C. W. Bardeen, 1914. xxi, 209 p. illus. 8°

SPECIAL SUBJECTS OF CURRICULUM.

1510. Armstrong, Henry E. Science and the school. *School world* (London) 16: 333-37, September 1914.

Writer says the great mistake in English schools is that of attempting to teach "the elements of this or that special branch of science; what we should seek to do is to impart the elements of scientific method and inculcate wisdom, so choosing the material studied as to develop an intelligent appreciation of what is going on in the world. It must be made clear, in every possible way, that science is not a mere body of doctrine, but a method; that its one aim is the pursuit of truth."

1511. Churchman, Philip H. On the teaching of French pronunciation. *School review*, 22: 545-54, October 1914.

Says that good results will come from hard work alone. "But this hard work can be simplified by the scientific method, the inductive approach, and the principle of contrast by perspective."

1512. Clark, Clifford P. The translation habit. *Classical journal*, 10: 17-28, October 1914.

Denounces the use of the "so-called *pony*" as the "most insidious influence tending to undermine Latin study." Presents measures to prevent such use, as follows: "1. Banishment of the translation by the lecture method; 2. Banishment by compulsion, in the form of a pledge or law; 3. Banishment by making the student a butt of ridicule; 4. Banishment by insistence on important details; 5. Banishment of the translation by making 'sight translation' the final and supreme test for promotion," etc.

1513. Copeland, E. B. Botany in the agricultural college. *Science*, n. s. 40: 401-5, September 18, 1914.

Writer says that the main cause of the failure of the college of agriculture is that "the kind of agricultural problems which are presented, discussed, and worked with in its classes, are not the kind which it is practicable for a farmer to work with after he graduates. The graduate is not equipped to find employment for his intellect on the farm."

1514. Cordrey, Everett E. Physics in the high school. *Arkansas teacher*, 2: 12-15, October 1914.

To be concluded in the November issue.

"The purpose of this paper is to deal briefly with the history of physics, content and organization of first year physics course, together with a few suggestions relative to the pedagogy of physics."

1515. Cragun, J. Beach. A psychological analysis of the basis on which credit for the study of music is to be placed. *School music*, 15: 13-16, 19-20, September-October 1914.

"This paper will not concern itself with the amount of credit offered, but will attempt to indicate the bearing of the subject of music on the mental development of the child, the difficulties to be overcome in getting music upon the proper accredited basis, and will endeavor to offer some aids to your own thinking as a means to this end."

1516. D'Ooge, Benjamin L. High school Latin and the college entrance requirements. *Classical journal*, 10: 29-40, October 1914.

Advocates, among other things, a two-year Latin course "so rich and full, so vital and interesting, that it will be altogether worth while for the great army that does not go beyond." Discusses the requirements formulated for the third and fourth years.

1517. Dykema, Peter W. Community music—an opportunity. *School music*, 15: 6-12, September-October 1914.

Outline of an address delivered before the Department of music education of the National education association at St. Paul.

1518. Egan, Rose F. Scientific methods in the study of literature. *Catholic educational review*, 8: 232-45, October 1914.

1519. Faithful, Lillian M. English literature and language. *Journal of education* (London) 46: 684-86, October 1, 1914.

Says that language should never be regarded merely as "a linguistic exercise; words should be living realities to be made friends with, not dead bodies to be dissected."

1520. Heuser, Frederick J. W. College entrance examinations in German. *Educational review*, 48: 217-26, October 1914.

Advocates the oral test, but such test should be supplementary. Writer says: "The written test must continue to be the backbone of the examination, unless the study of German is to lose one of its fundamental educational values, the training in accuracy and painstaking care."

1521. Holzwarth, Charles. First-year Latin and first-year German. *School review*, 22: 540-44, October 1914.

A reply to Mr. Senger's article "A comparison of the first-year courses in Latin and German," in *School review* for May 1914. Criticises Mr. Senger's point of view.

1522. Howell, Henry Budd. A foundational study in the pedagogy of arithmetic. New York, The Macmillan company, 1914. xi, 328 p. 8°.

Bibliography: p. 309-12.

Presents, first, a very complete résumé of the extensive experimental literature on the psychology and pedagogy of arithmetic; secondly, the results of the author's own research of the arithmetical abilities of certain school children, and the problem of the school child's concepts of number.

1523. Jackson, Leroy F. A single aim in history teaching. *History teacher's magazine*, 5: 245-48, October 1914.

"This paper is the result of an attempt to locate and evaluate the province of the history teacher in a scheme of twentieth century education."

1524. Klappes, Paul. Teaching children to read. New York, D. Appleton and company, 1914. 213 p. 12°.

Author says that "this book is given solely to the task of aiding teachers, who are seeking a method that has stood the pragmatic test, and that may, therefore, help them in their day's work."

1525. Löffler, Eugen. Die freiere gestaltung des mathematisch-naturwissenschaftlichen unterrichts in den oberen klassen der höheren schulen. Monatshefte für den naturwissenschaftlichen unterricht aller schulgattungen, 7: 385-95, July 1914.

To be concluded.

Proposes a bifurcation into a language group and a mathematics-science group for the upper grades of the gymnasium. Still greater freedom and adjustment to the pupil's needs and abilities are to be secured by offering special or elective courses. The aim and method of pursuit of the study of mathematics and the natural sciences should not be identical in the two groups.

1526. Mensel, Ernest H. The one-unit preparation in a modern language for admission to college. Education, 35: 65-76, October 1914.

Says that if the "one-year course is allowed to continue its existence, it should be granted a longer lease of life only on the condition that it be continued after the student's entrance to college until a certain degree of proficiency is reached."

1527. Miller, Edwin L. Separating composition from literature in the high school. English journal, 3: 500-12, October 1914.

A paper read before the National council of teachers of English at St. Paul, Minnesota, July 9, 1914.

There are those who believe that the study of literature should be separated from that of composition and there are those who believe the opposite. "To show why and in what sense both are right is the first object of this paper. Its second object is to show how these apparently divergent views can be so reconciled in practice as to secure the advantages of both theories without sacrificing the benefits of either."

1528. O'Brien, Harry R. Agricultural English. English journal, 3: 470-79, October 1914.

1529. Opdycke, John B. The teaching of vocational English—(IV). Journal of education, 80: 347-48, 353-54, October 15, 1914.

Letter-writing adjusted to business and vocational demands.

1530. Osgood, Edith W. The development of historical study in the secondary schools of the United States. School review, 22: 511-26, October 1914.

Concluded from previous number of School review. Thanks to the labors of the Committee of ten and the Committee of seven, the teaching of history has been put on "a scientific basis, and the outlook is bright." A review of early conditions in the schools.

1531. Perkins, Albert S. Latin as a vocational study in the commercial course. Classical journal, 10: 7-16, October 1914.

Outlined in Journal of home economics, October 1914.

Work in the Dorchester high school, Massachusetts. Shows the value of Latin in extending the knowledge of English; vocabulary building, etc. Lays stress on comparative word study and grammar. Course has met with the greatest favor and success.

1532. Rippmann, Walter. A standard for the King's English. Educational times (London) 67: 430-31, September 1, 1914.

In conclusion urges the Board of Education of Great Britain "to summon a conference on standard speech, representative of the English-speaking world." A conference not only Imperial, but Anglo-American.

1533. Voaden, J. Nature study and the teacher; or, the point of view in nature study. School (Toronto, Canada) 3: 115-18, October 1914.

1534. **Winge, Axel P.** Der naturwissenschaftliche unterricht in den höheren schulen Schwedens. Monatshefte für den naturwissenschaftlichen unterricht aller schulgattungen, 7: 289-97, 343-52, 404-08, May, June, July 1914.

An account of courses of study, methods, textbooks, and preparation of teachers. The author notes the growing conviction that requiring all the studies of a full curriculum of all students produces superficiality. Some form of group system, with major subject as the core of each group, is coming to be looked upon as the most rational solution.

KINDERGARTEN AND PRIMARY SCHOOL.

1535. **Groszmann, Maximilian P. E.** Adaptation of the work of the kindergarten to the needs of individual children. Kindergarten review, 25: 65-74, October 1914.

Address given before the Department of kindergarten education, National education association, St. Paul, July 1914.

1536. **Smith, H. Bompas.** The Montessori conference. Educational times (London) 67: 418-19, September 1, 1914.

Report of conference at East Runton, England. Dr. Walker and others criticised Dr. Montessori's methods on the ground that "they failed to foster the child's imagination and religious instincts."

RURAL EDUCATION.

1537. **Andress, J. Mace.** Solving country life problems in Massachusetts. Education, 35: 91-94, October 1914.

The work of the State normal school at Worcester, Mass.

1538. **Butterfield, Kenyon L.** The training of rural leaders. Survey, 33: 13-14, October 3, 1914.

Deplores lack of rural leaders. Advocates the endowment, at strategic points, of schools of rural social service, in connection with standard educational institutions, preferably agricultural colleges.

1539. **Ferrell, John A.** The rural school and hookworm disease. Washington, Government printing office, 1914. 43 p. plates. 8° (U. S. Bureau of education. Bulletin, 1914, no. 20.)

1540. **Kirk, Will T.** A new standard for rural schools. American motherhood, 39: 227-29, October 1914.

An account of how H. C. Seymour, school superintendent of Polk county, Oregon, has improved the rural schools by "standardization."

1541. **Kramer, Mary Eleanor.** A new graft on the old tree of learning. Popular educator 32: 86-88, October 1914.

The schools of Cook county, Ill., under the direction of Mr. Tobin and his five "country-life experts."

1542. **Lewis, Howard T.** The social survey in rural education. Educational review, 48: 266-87, October 1914.

Treats of the schoolhouse as a common meeting place and as a clearing house for the community's activities, etc.

1543. **Nydegger, J. A.** Rural schools. Sanitary survey of schools in Bartholomew county, Ind. Washington, Government printing office, 1914. 16 p. 8° (United States public health service. Reprint no. 177 from the Public health reports, February 6, 1914.)

1544. **White, E. V. and Davis, E. E.** A study of rural schools in Texas. Austin, University of Texas, 1914. 167 p. illus. 8° (Bulletin of the University of Texas, no. 364. Extension series, no. 62. October 10, 1914.)

SECONDARY EDUCATION.

1545. Alsup, T. E. What high school students want. *Missouri school journal*, 31: 447-53, October 1914.

"Two years ago seventy-five students of the Louisiana (Mo.) high school filled out blanks showing (1) the three or more qualities of a teacher admired, (2) the three or more qualities of a teacher despised, (3) the three or more qualities admired of a student, and (4) the three or more qualities despised of a student." This paper sums up the answers received.

1546. Baker, E. E. The extent and causes of failures in the high school. *Wyoming school journal*, 11: 24-27, September 1914.

Gives figures to show the extent of failures in the Laramie high school and enumerates the reasons therefor.

1547. Brown, H. A. The function of the secondary school. *Educational review*, 48: 227-40, October 1914.

Notes the large increase of attendance at secondary schools throughout the country. Gives some of the new types of schools springing up to meet the changing needs of society. Says that industrial education should be given in the high school. Discusses the questions, "What is vocational education?" "What is liberal education?" Thinks the secondary school course should be "broadly educational but largely within the field of the industrial arts."

1548. Perry, John. Education and modern needs. *School world* (London), 16: 328-33, September 1914.

An arraignment of the English public school—Eton, Harrow, etc. Describes educational conditions in such institutions as mediaeval and worthless. Invects against compulsory Latin.

1549. Wheelock, Charles F. Secondary education. Albany, The University of the state of New York, 1914. 77 p. 8°. (University of the state of New York bulletin, no. 575, September 15, 1914.)

From the 10th Annual report of the New York state education department. Contains brief synopses of laws for promotion of secondary education recently enacted by the various states, and of statutory requirements for high school teachers' certificates.

TEACHERS: TRAINING AND PROFESSIONAL STATUS.

1550. Dakin, W. S. A plan for training teachers while in service. *Elementary school journal*, 15: 106-9, October 1914.

Discusses the problem of training teachers for rural schools. Cites system developed in the country schools of Connecticut.

1551. Hodgson, Elizabeth. Are teachers human? *American teacher*, 3: 102-104, September 1914.

Summarizes what the world says about teachers, and then gives a set of rules for teachers to follow in order that the world may regard them as full-orbed men and women rather than a race of thin-blooded book-worms.

1552. Horn, P. W. Building the teacher's personality. *Texas school magazine*, 17: 10-11, 39-42, October 1914.

Gives some suggestions for strengthening the personality of the teacher.

1553. Learned, William Setchel. The oberlehrer, a study of the social and professional evolution of the German schoolmaster. Cambridge, Harvard university press, 1914. xiv, 150 p. 8°. (Harvard studies in education, pub. under the direction of the Division of education, vol. 1)

Bibliography: p. 146-50.

1554. Tränckner, Chr. Die philosophischen elemente in der lehrerbildung. *Pädagogische blätter*, 43: 381-90, heft 8, 1914.

Contends that all of the candidate's studies should not only be given a philosophic underpinning, but should be penetrated with philosophic understanding and in turn yield philosophic insight.

1555. Witham, Ernest C. Teacher measurement. Atlantic educational journal, 10: 24-25, September 1914.

Gives the scale for measuring teachers, together with graph cards, which have now both been separately published. An account of the system first appeared in the Journal of educational psychology, May 1914 (item 909 in this record).

1556. Wollenhaupt, W. F. The distribution of teachers with regard to the means through which positions are secured. Illinois teacher, 3:1-4, October 1914.

"The object of this study is two-fold: 1st, to ascertain the distribution of teachers in Illinois schools according to sex and the types of positions they hold; 2d, to ascertain to what extent teachers in the various types of positions secure their positions through teachers' agencies."

HIGHER EDUCATION.

1557. Capen, Samuel P. The Division of higher education of the Bureau of Education. High school quarterly, 3: 17-21, October 1914.

Explains the purpose and the work of the Division of higher education.

1558. Conover, Milton. Should Congress establish a National university? Journal of education, 80: 293, 299-300, October 1, 1914.

Answers some objections that have been made to the establishment of a National university.

1559. Fischer, Martin H. The spirit of a university. Science, 40: 464-71, October 2, 1914.

Defines the work and spirit of the university. Says: "The best universities, perhaps the only universities known, and the spirit of which every country is busy copying, have no boards of trustees whatsoever, and no presidents."

1560. Fitch, Albert Parker. The college course and the preparation for life. Eight talks on familiar undergraduate problems. Boston and New York, Houghton Mifflin company, 1914. 227 p. 12°.

CONTENTS.—1. Where all the problems begin.—2. The struggle for personal recognition.—3. The fight for character.—4. The religious instinct and the Christian experience.—5. The exceeding difficulties of belief.—6. Religion and scholarship.—7. Is learning essential?—8. The distaste for the beautiful.

1561. Fitzpatrick, Edward A. The universities and training for public service. Survey, 32: 614-15, September 19, 1914.

Says there is an "indubitable demand for trained men for public service." What the universities are doing in the matter.

1562. Keidel, Heinrich. Der deutsche lehramtsassistent in Amerika. Preussische jahrbücher, 157: 261-67, August 1914.

The author, who was 1912-1913 exchange professor at the University of Wisconsin, and at present is an instructor in Ohio State university, writes concerning the qualifications of the prospective exchange teacher, and of the difficulties and tasks he will find himself called upon to face.

1563. Krauel, H. Was will die Wheeler-gesellschaft? Hochschul-nachrichten, 24: 342-43, June 1914.

Aims at a discussion of the questions of German and foreign, especially American, higher education.

The "Wheeler-gesellschaft" resulted from the seminar on the systems of higher education in Germany and America, which Dr. Benjamin Ide Wheeler, president of the University of California, gave at the University of Berlin during the winter of 1909-10.

1564. Monarchy and democracy in education. Unpopular review, 2: 356-71, October-December 1914.

Discusses the general question of college government, which "involves the relation of the boards of control to the president and the faculty, the relation of the president to the faculty, on the one hand, and to the student body on the other, with the result that the president becomes the official medium of

communication between the governing body and the faculty." Deprecates this "triangular arrangement," which results in lack of harmony, and constant misunderstandings.

1565. Segar, Mary. Roger Bacon and the celebration at Oxford of the seventh centenary of his birth. *Catholic world*, 100: 48-55, October 1914.

1566. Seldes, Gilbert V. The changing temper at Harvard. *Forum*, 52: 521-30, October 1914.

Inveighs against the Harvard spirit. Says that within "the past three years the degeneration of every cultural activity has been persistently rapid." . . . "The college has failed to make intelligent activity the basis of democracy."

1567. Spaulding, Thomas M. Federal aid to military education in colleges. *Education*, 35: 107-14, October 1914.

Says that the standard universities and colleges afford a far better source of supply for the corps of army officers than do the majority of military schools.

1568. Stokes, Anson Phelps. Memorials of eminent Yale men; a biographical study of student life and university influences during the eighteenth and nineteenth centuries. New Haven, Yale university press, 1914. 2 v. ports. f°.

CONTENTS.—Vol. I, Religion and letters.—Vol. II, Science and public life.

1569. Trade unionism in a university. Unpopular review, 2: 347-55, October-December 1914.

Discusses in an interesting way the "so-called strike of the Wisconsin student workers union," and some of the social and economic questions involved.

1570. Warnock, Arthur R. Fraternities and scholarships at the University of Illinois. *Science*, 40: 542-47, October 16, 1914.

Draws the conclusion that the fraternity upperclassmen are "open to a charge that fraternity life engenders in the members a spirit of contentment with a grade of work somewhat lower than that of which the men are capable." Illustrated with interesting graphs.

SCHOOL ADMINISTRATION.

1571. Chancellor, W. E. County supervision: its status and betterment. *American school board journal*, 49: 11-12, 65, October 1914.

Discusses the difficulties in county supervision, the real needs and the things that can be done at once to better conditions.

1572. Finegan, Thomas E., ed. Judicial decisions of the State superintendent of common schools, State superintendent of public instruction, State commissioner of education, from 1822 to 1913. Albany, N. Y., The University of the State of New York, 1914. 1508 p. 4°.

The editor has read the entire number of more than 12,000 decisions, and from these selected about 800 cases, which are of value in showing the historical development of the school system, and more particularly those which have a bearing upon the interpretation of the present law governing that system.

1573. Smith, H. P. A suggestive school-accounting system. *Midland schools*, 20: 36-40, October 1914.

The system here outlined is an illustration of how one district met a problem that is perplexing to many a school district, and solved it in an apparently satisfactory way.

SCHOOL MANAGEMENT.

1574. Boulder county, Colorado, teachers' association. Home study. Report of an investigating committee. *Nebraska teacher*, 17: 84, 86, September 1914.

"Under our present school system, home work, judiciously assigned and carefully checked, does not injure the health, mentality, or habits of study of children above the fourth grade."

1575. Cooper, Clayton Sedgwick. The examination octopus. Educational foundations, 26: 69-76, October 1914.

1576. Coulter, Vincil C. The redistribution of the content of some high-school courses. English journal, 3: 490-99, October 1914.

A paper read before the National council of teachers of English at St. Paul, July 9, 1914.

Briefly outlines a plan of distribution which "provides for all the significant material in the departments under discussion with a saving of time and a gain in unity of aim."

1577. Folkestad, Svein. Mannheimer-systemet eller klassedeiling etter arbeidsdug. Skolebladet, 17: 416-19, 427-30, September 5, 12, 1914.

1578. Morehouse, Frances M. The discipline of the school; with introduction by Lotus D. Coffman. Boston, New York [etc.] D. C. Heath & co. [1914] xviii, 342 p. 12°.

A classified bibliography: p. 305-11.

First deals with the general aspects of the situation, and with the theory of discipline; then takes up the concrete problems of school life and offers suggestions for their solution. Author believes that "fairly concrete means of achieving good results may be passed from one teacher to another."

SCHOOL ARCHITECTURE.

1579. The daylight illumination of schools. School world (London) 16: 342-47, September 1914.

Reprinted from the Illuminating engineer, July 1914. Describes the fundamental principles of lighting—physical and physiological. The first concerns light, climate, the building and its environment; the second, the visual apparatus of the workers and the subjective impression received.

1580. Schoenfelder, L. Schulhäuser in Dänemark. Schulhaus, 16: 382-86, heft 8, 1914.

A description of a system of school-buildings consisting of detached but communicating "pavillons." Illustrated with drawings of facades and floor plans.

SCHOOL HYGIENE AND SANITATION.

1581. Anderson, Harry B. Medical examination of school children a failure. Medical freedom (Chicago) 4: 11-16, September 1914.

1582. Bridgeford, Edna G. School nursing in second class cities. American education, 18: 79-82, October 1914.

"Read before the National convention on public health nursing, St. Louis, April 1914."

1583. Cunningham, J. H. Memorandum on the feeding of school children in Edinburgh. Educational news (London) 39: 764-66, August 21, 1914. History of the movement.

1584. Dadachanji, K. K. Medical inspection of Parsi school children. Educational review (Madras, India) 20: 499-510, August 1914.

1585. Greeley, Horace. What the states and cities of the United States are doing in public health education work. American journal of public health, 4: 733-38, September 1914.

1586. Hessler, Robert. Dusty air in the school-room. [Buffalo, N. Y., 1914] 9 p. 8°.

From the Transactions of the fourth International congress on school hygiene, Buffalo, August 1913.

1587. Mills, Lewis S. Observing the health of school children at first hand. Normal instructor and primary plans, 23: 39, 73, 75, 88-89, 69, October, November, 1914.

"The subject of conserving the health of school children is one of utmost concern, and one that is occupying foremost attention among educators. Theories abound, but Mr. Mills in his two articles deals with actualities and no teacher can fail to be helped by his experiences. Conditions like these are far from uncommon, but, appalling as they are, they may be greatly alleviated . . ."—Editors.

1588. O'Shea, M. V. What to do with our dull children. Defective hearing, poor eyesight, difficult breathing are frequently the direct cause of dullness. Atlantic educational journal, 10: 13-14, September 1914.

1589. Rao, C. R. N. Medical inspection of schools. Educational review (Madras, India) 20: 485-91, August 1914.

A plea for the adoption in India of well-considered schemes of medical inspection of schools, after European models.

1590. Reavis, W. C. The relation between the physical and the health conditions of children and their school progress. Elementary school journal, 15: 96-105, October 1914.

A study that presents "a statement of the relationship that was found to exist in a certain city school, (1) between the physical condition of the children and their mental progress (a) as measured by standing in class, (b) as measured by completed work; (2) between the nutritional and developmental conditions of the children and their standing in class; (3) between physical defects, attendance, and class standing; (4) between the social status of the child and each of the above topics."

Illustrated by statistical diagrams and tables.

1591. Skeele, Annie C. Health problems and the normal school. American schoolmaster, 7: 297-302, September 1914.

1592. Spence, Philip Sumner. City school children healthier than country school children. Child-welfare magazine, 9: 45-49, October 1914.

From New York Times.

This article is based on the result of an investigation conducted by a committee on health problems of the National council of education, which has worked with the cooperation of a special committee of the American medical association. These committees have been studying for two years the health problems of the rural schools.

1593. Stoneroad, Dr. Rebecca. Health statistics of public school children of Washington, D. C., with special reference to grade, sex, and environment. [Buffalo, N. Y., 1914.] 10 p. 8°.

From the Transactions of the fourth International congress on school hygiene, Buffalo, August, 1913.

1594. Williams, Edward Huntington. Increasing your mental efficiency. New York, Hearst's international library co., 1914. 242 p. illus. 12°.

1595. Wilson, R. H. Oral hygiene. Oklahoma school herald, 22: 8-11, October 1914.

"The prime object of this article prepared by Dr. L. G. Mitchell, chairman state oral hygiene committee, and Mrs. Irma Matthews-McLennan and incorporated in the Oklahoma 'Course of study', is to teach the great need of prevention."

SEX HYGIENE.

1596. Fender, Charles W. Some experiments in the teaching of sex hygiene in a city high school. School science and mathematics, 14: 573-78, October 1914.

Gives the method used in teaching sex hygiene to boys of the Lowell high school, San Francisco, Cal. Also gives some of the results.

1597. March, Nora H. Training the instructors. Educational times (London) 67:425-27, September 1, 1914.

Instruction in sex teaching; aim of work outlined is not to produce "sex specialists," but simply to give teachers a sensible grasp of "those aspects of child life of which they are usually ignorant."

1598. Shields, Thomas Edward. Sex instruction in the public schools. Catholic educational review, 8:246-53, October 1914.

Discusses particularly an editorial which appeared in the September issue of Education.

EUGENICS.

1599. Eugenics: twelve university lectures, by Morton A. Aldrich, William Herbert Carruth, Charles B. Davenport [and others] with a foreword by Lewellys F. Barker. New York, Dodd, Mead and company, 1914. xiii p., 1 l., 348 p. illus. (charts.) 8°.

"The lectures contained in this volume were selected from among a number given in various universities and colleges throughout the country in the scholastic year of 1912-1913."

CONTENTS.—The eugenics programme and progress in its achievement, by C. B. Davenport.—Eugenics as viewed by the zoologist, by R. H. Wolcott.—Eugenics from the point of view of the physician, by V. C. Vaughan.—Eugenics as viewed by the physiologist, by W. H. Howell.—Eugenics: its data, scope and promise, as seen by the anatomist, by H. E. Jordan.—Eugenics from the point of view of the geneticist, by H. J. Webber.—The first law of character-making, by A. Holmes.—The eugenics movement from the standpoint of sociology, by C. A. Ellwood.—Eugenics and its social limitations, by A. G. Keller.—Selections from an address on eugenics, by W. H. Carruth.—Eugenics and economics, by M. A. Aldrich.—Eugenics: with special reference to intellect and character, by E. L. Thorndike.

1600. Jewett, Frances Gulick. The next generation; a study in the physiology of inheritance. Boston, New York [etc.] Ginn and company [1914] xli, 235 p. illus. 12°.

1601. Saleeby, Caleb Williams. The progress of eugenics. New York and London, Funk & Wagnalls company, 1914. 259 p. front. 8°.

PHYSICAL TRAINING.

1602. Hetherington, Clark W. The training of the physical educator and play director. Educational review, 48:241-53, October 1914.

Gives a complete schematic summary, presented in chart form, of "all the important courses essential in a curriculum for the professional training of physical educators and play directors."

1603. Olivet, Henry S. Physical training in the normal school. Education, 35:82-90, October 1914.

Gives the values of the various forms of physical exercise.

1604. Small, Albion W. The effects of intercollegiate athletics. Religious education, 9:460-80, October 1914.

Appended, are digests of results obtained from requests sent out to athletic graduates.

PLAY AND PLAYGROUNDS.

1605. Bovard, Katherine H. School playground management. School journal, 81:239-40, September 1914.

An account of the method employed at the Ross school, Washington, D. C.

1606. Hetherington, Clark W. The demonstration play school of 1913. Berkeley, University of California press, 1914. p. 241-88. 4°. (University of California publications. Education. vol. 5, no. 2, July 30, 1914)

A report to Prof. Charles H. Rieber, dean of the summer session of the University of California, on the Demonstration play school conducted during

the summer session of 1913. "The play school is a school organization with its programme of activities and methods based on the central idea of uniting the spontaneous play-life of the child, who needs and desires leadership, with society's demand that he be instructed."

1607. Patrick, G. T. W. The psychology of play. Pedagogical seminary, 21: 469-84, September 1914.

References: p. 482-84.

SOCIAL ASPECTS OF EDUCATION.

1608. Bland, Henry M. David Starr Jordan and his message of peace. Education, 35: 77-81, October 1914.

"As the 'Apostle of peace,' President Jordan is strongly equipped to do the work of evangelization." Describes President Jordan's crusade against war.

1609. Building a civic center around a tri-city high school. Survey, 33: 65-66, October 17, 1914.

Work at La Salle-Peru township high school, La Salle, Ill.

1610. Castagnola, G. Sapienza. El cultivo del sentimiento de solidaridad en la escuela. Monitor de la educación común (Buenos Aires) 32: 17-33, July 1914.

An account of efforts in social education in Italy and France.

1611. Ward, Edward J. Remuneration for the social center secretary. Middle-West school review, 7: 5-7, October 1914.

The writer says that "for the civic, social, and recreational use of [school] buildings by adults and older youth to become general, there must be definite authorization and remuneration of the person who serves as civic secretary and director of recreation in each district."

CHILD WELFARE.

1612. Casey, Frank. Boy betterment and club work. Child (London) 4: 1040-47, September 1914.

Compton boys' club, London. Work among poor boys. Illustrated.

1613. Flexner, Bernard and Baldwin, Roger N. Juvenile courts and probation. New York, The Century co., 1914. 308 p. illus. 8°.

"Selected references": p. 292-98.

1614. Key, Ellen. The younger generation; tr. from the Swedish by Arthur G. Chater. New York and London, G. P. Putnam's sons, 1914. 270 p. 8°.

CONTENTS.—What the age offers and expects of youth.—2. Associated activity and self-culture.—3. The peace problem.—4. Youth, woman, and anti-militarism.—5. "Class badges."—6. The children's charter.—7. Recreative culture.—8. The few and the many.

MORAL EDUCATION.

1615. Gillet, M. S. The education of character. Tr. by Benjamin Green; with a preface by Rev. Bernard Vaughan, S. J. New York, P. J. Kenedy & son [1914] 164 p. 12°.

1616. Johnson, Franklin Winslow. The problems of boyhood. A course in ethics for boys of high-school age. Chicago, Ill., The University of Chicago press [1914] xxv, 180 p. 12°.

1617. Powell, Lyman P. Ethical study in our colleges. Churchman, 110: 466-67, October 10, 1914.

By the president of Hobart and William Smith colleges, Geneva, N. Y.

1618. Tufts, James H. Ethics in high schools and colleges. Teaching ethics for purposes of social training. Religious education, 9: 454-59, October 1914.

RELIGIOUS EDUCATION.

1619. Baker, James C. The church and the state university. Methodist review (Nashville) 63: 694-710, October 1914.

A general discussion of the growth of state universities, and of the religious status of their students, with a specific account of the work of Trinity Methodist Episcopal church at the University of Illinois.

1620. Evans, Herbert Francis. The Sunday-school building and its equipment. Chicago, The University of Chicago press, 1914. p. 151-224. illus., plans. 8°. (Biblical world, vol. 44, no. 3, September 1914)

MANUAL AND VOCATIONAL TRAINING.

1621. Black, William W. The place of manual training under the Indiana vocational educational law. Educator-journal, 15: 55-60, October 1914.

1622. Boshart, E. W. The day vocational school. Manual training and vocational education, 16: 65-73, October 1914.

The author says that "the ideal vocational day school should contain the two elements, the prevocational and the vocational, with such an intermingling of vocationalizing and liberalizing elements as will make for the most complete balance at the various stages of progress."

1623. Kling, Arthur B. Vocational schools and their field of work. The Multitude, 1: 328-30, October 1914.

Vocational school movement in Illinois, and work of E. G. Cooley.

1624. Seerley, Homer H. The harmonizing of vocational and cultural education. American schoolmaster, 7: 303-5, September 1914.

Paper delivered before the National council of education at St. Paul, Minn., July 6, 1914.

1625. Taylor, Joseph S. A handbook of vocational education. New York, The Macmillan company, 1914. xvi, 225 p. illus. 12°.

Topics: Industrial education in Europe. Industrial vs. manual training. The intermediate school. Continuation schools. The training of vocational teachers. Vocational guidance. Apprenticeship and compulsory education. Bibliography.

1626. Vaughn, S. J. Manual training equipments for village schools. American school board journal, 49: 19-20, 60, October 1914.

"Mr. Vaughn has been supervisor of manual training in two important, small cities of the middle west, and has headed the manual-arts departments of two of the largest normal schools in the country. He has successfully planned scores of manual training equipments for villages and small cities thruout the north central states."—Editor's note.

VOCATIONAL GUIDANCE.

1627. Brennan, John V. The schools and vocational guidance. American schoolmaster, 7: 289-96, September 1914.

1628. Dougherty, N. F. The relation of the school to employment. National association of corporation schools, Bulletin, 8: 23-27, October 1914.

A paper read before the second annual convention of the National association of corporation schools, Philadelphia, June 1914.

1629. Nutt, Hubert W. What can psychology contribute to the solution of the problem of industrial education and vocational guidance? Teacher's journal, 14: 143-52, October 1914.

1630. Williams, George H., ed. Careers for our sons; a practical handbook to the professions and commercial life. 4th ed., rev. throughout and enl. London, A. and C. Black, 1914. 564 p. 12°.

FOLK HIGH SCHOOLS.

1631. Dragehjelm, Hans. Die dänische volkshochschule; eine geschichtliche aufklärung. Neue bahnen, 25:495-505, August 1914.

"Two chief tendencies have for many years been predominant in Danish intellectual and cultural life. The one is the movement led by Grundtvig, the other is 'Brandesianism' [led by Brandes]. 'Brandesianism' claims the honor of having introduced modern intellectual and cultural life into Denmark, while the movement inspired by Grundtvig, in its origin and subsequent development, is decidedly national. 'Brandesianism,' which arose in the 'seventies, is a cult of the intellect,—the tendency represented by Grundtvig, on the other hand, aims at satisfying man as man, and above all at fulfilling the longing of his heart with regard to temporal as well as eternal concerns." p. 495-96.

The author then sketches the life work of Grundtvig, and in particular his conception of a free high-school for adults and the practical development of his plans. An institution at Elkhorn, Iowa, founded by Scandinavians in 1878, was designed to realize the aims of the Danish models.

1632. Evans, Henry R. What Denmark is doing for the Danes. New age, 21:106-9, September 1914.

Describes the uplift work of the Danish folk high schools.

1633. Foght, Harold W. The Danish folk high schools. Washington, Government printing office, 1914. 93 p. plates. 8°. (U. S. Bureau of education. Bulletin, 1914, no. 22)

HOME ECONOMICS.

1634. Williams, Jessamine Chapman. The subject matter in home economics courses for high schools: factors determining the choice of subject matter in a laboratory course in foods. Manual training and vocational education, 16:74-81, October 1914.

"Written from the point of view of one who has received the best scientific, as well as the best pedagogic instruction in household science, and has had a rich teaching experience."

COMMERCIAL EDUCATION.

1635. Anderson, William L. The stimulative and correlative value of a well-balanced course in commerce and industry. School review, 22:505-10, October 1914.

Concluded from September number. Treats of the stimulative value of the proposed course. Says that work in commerce and industry, judged from the standpoint of psychology, would "compare favorably with many very valuable subjects. Judgment and reason are developed to a good degree in the study of the explanation (physical, political, and economic) of the geographic division of labor—the localization of industry," etc.

EDUCATION OF WOMEN.

1636. Brown, Helen Dawes. Talks to freshman girls. Boston and New York, Houghton Mifflin company, 1914. 90 p. 12°.

1637. Evans, Mary Adelle. How should secondary mathematics for girls differ from that for boys? Mathematics teacher, 7:17-23, September 1914.

Thinks that "the difference in secondary mathematics for girls from that for boys lies in its applications, and is determined by their capabilities and opportunities and not by their sex."

1638. Keech, Mabel L. Our girls and their training. Education, 35:95-97, October 1914.

Question of vocational education.

1639. Muthesius, Karl. Nicht "seminaristisch," sondern "wissenschaftlich." *Pädagogische blätter*, 43: 273-78, heft 6, 1914.

Traces the history of the present regulations governing the admission of women to the teaching profession and to the university. The author denies that there is a real and vital difference between the "normal" training given by the teachers' seminaries and by the higher schools, whose graduates are admitted to full academic standing at the universities. Both are "scientific" in the same sense.

1640. Die vorbereitung der mädchen auf das universitätsstudium. *Pädagogische blätter*, 43: 306-08, heft 6, 1914.

Presents the three courses open to women who wish to prepare for eligibility to positions as "oberlehrerin" and for university studies. The advantages and disadvantages of each are stated.

AFRICANS AND ORIENTALS.

1641. Barton, Ernest D. The findings of the continuation committee conferences in Asia on education. *International review of missions* (Edinburgh) 3: 670-82, October 1914.

Discusses the place of education in missionary work; and the aims of missionary education.

1642. Wilkie, A. W. and Macgregor, J. K. Industrial training in Africa. *International review of missions* (Edinburgh) 3: 742-47, October 1914.

Work of the Calabar mission of the United free church of Scotland.

EDUCATION OF DEAF.

1643. Albaugh, Laura L. Training the deaf child. *Volta review*, 16: 687-89, October 1914.

"Training in lip-reading should be begun as soon as deafness is discovered, though that be in very early childhood."

1644. Ferreri, Guilio. Notes on pedagogy and psychology in regard to the deaf. *Volta review*, 16: 719-21, October 1914.

Sixth article of a series. Deals with exercise and fatigue.

1645. The over-specialization of parents. *Volta review*, 16: 711-16, October 1914.

Discusses the attitude of parents to deaf children. Advocates a strong association of parents of the deaf in every state.

EDUCATION OF DEFECTIVES.

1646. Cabot, Richard C. Sub-standard workers. *Survey*, 33: 15-18, October 3, 1914.

Work of Dr. H. J. Hall, of Marblehead, Mass., who in 1895 established a workshop for neurasthenics. Patients are supervised and instructed by experts. They make articles that are salable and get wages for their products. Illustrated.

1647. Goddard, Henry H. School training of defective children. *Yonkers-on-Hudson, N. Y., World book company*, 1914. xxi, 97 p. illus. 8°. (School efficiency series, ed. by P. H. Hanus.)

Consists of Dr. Goddard's report—with some additions—on the "ungraded classes" of the New York city public school system, submitted in the New York city school inquiry, 1912.

LIBRARIES AND READING.

1648. Aley, Robert J. Books and high school pupils. *Educator-journal*, 15: 1-5, September 1914.

The writer thinks that a library is as necessary in a high school as a laboratory or a teacher, and that pupils should have the chance and the invitation to browse among the books. Gives some of the essentials of a high school library.

Some of the principal topics of this report are the following: Elimination of pupils from the schools in Iowa; Tables summarizing vocational information obtained from parents, pupils, and school officers; Truancy, delinquency, and juvenile court reports; Permanency of agriculture as a vocation; Attitude of employers and organized labor toward vocational education; Employment certificate provisions of different states; Vocational guidance.

1838. Leavitt, Frank M. To be educated or not to be educated? Industrial-arts magazine, 2: 189-92, November 1914.

Gives some lessons from Massachusetts, showing that the natural growth of industrial training thru a development of the department of manual arts has, without state aid, accomplished considerably more in the way of genuine industrial training for the fourteen year old boys of Boston than has the special state-aided plan.

1839. Lory, Charles A. The status of secondary vocational training in Colorado. Colorado school journal, 30: 7-12, October 1914.

In order to find at first hand what Colorado high schools are doing in vocational training, a questionnaire was sent to 68 superintendents. The replies to the questionnaire are summarized in this article.

1840. National society for the promotion of industrial education. Synopsis of the findings of the vocational education survey of the city of Richmond by the General survey committee. New York, National society for the promotion of industrial education [1914] 62 p. 8°.

This synopsis gives a brief account of the organization and method of the survey, and of some of the most important information bearing on the problem of vocational education for Richmond.

1841. New York (City) Board of education. Industrial conference. Washington Irving high school, June 29, 1914. New York, Department of education, 1914. 61 p. 8°.

Contains addresses by Thomas W. Churchill, John Purroy Mitchel, Charles A. Prosser, Gustave Straubenmüller, William A. Prendergast, H. E. Miles, and William Wirt.

1842. Robinson, Karl Davis. Stoking through school. Harper's weekly, 59: 447-48, November 7, 1914. illus.

"A successful experiment in Missouri, where the School of hard knocks has been made into Park college."

Describes the work of Park college, Parkville, Mo.

1843. Westermann, W. L. Vocational training in antiquity. School review, 22: 601-10, November 1914.

An interesting presentation of the subject of vocational training in ancient Greece and Rome; also the period of Ptolemaic-Greek and Roman domination of Egypt.

1844. Wilson, G. M. Permanency of farming as a vocation and its educational significance. Midland schools, 29: 68-70, November 1914.

The writer has based his article on data collected by the Iowa state college from the total population of a typical farming community of Iowa. The data show that farming is an unusually permanent occupation.

VOCATIONAL GUIDANCE.

1845. Lewis, Ervin Eugene. Vocational guidance in high schools. Iowa City, Iowa, The University, 1914. [23] p. 8°. (Bulletin of the State university of Iowa. University extension bulletin no. 6, July 4, 1914.)

1846. Smith, William Hawley. Vocational guidance. Industrial-arts magazine, 2: 234-40, December 1914.

The author gives his experience in vocationally guiding himself, the boys and girls whom he taught, and the boys employed in his furniture factory. He emphasizes two points in the matter of vocational guidance, first, inborn ability, and second, competitive efficiency.

AGRICULTURE, SCHOOL GARDENS.

1847. Bricker, Garland Armor. Agricultural education for teachers. New York [etc.] American book company [1914] 172 p. illus. 12°
1848. Burkett, Charles William; Stevens, Frank Lincoln *and* Hill, Daniel Harvey. Agriculture for beginners. Rev. ed. Boston, New York [etc.] Ginn and company [1914] 355 p. illus. 12°.
Accompanied by a pamphlet, How to teach agriculture, revised, 22 p.
1849. Joyce, Alice V. School gardening in Portland, Oregon. Nature-study review, 10: 275-81, October 1914.
Read at the annual meeting of the National school garden association, Salt Lake City, July 11, 1913.

HOME ECONOMICS.

1850. Palmer, Cornelia. A plan for the development of home economics along the line of practical education. Rural educator, 4: 54-56, September-October 1914.
Gives a general scheme of home economics education from kindergarten to university.

COMMERCIAL EDUCATION.

1851. Rose, Mary Swartz. Food for school boys and girls. New York city, Teachers college, Columbia university [1914] 15 p. diagr. 8°.
(Teachers college bulletin. 5th ser. no. 12. Technical education bulletin no. 23)
1852. Kahn, Joseph *and* Klein, Joseph J. Principles and methods in commercial education; a text-book for teachers, students, and business men. New York, The Macmillan company, 1914. 439 p. 12°.
Bibliography follows each chapter.
This "pioneer work" aims to raise the standard of the commercial teacher and give the business man an appreciation of the value of a theoretical education in correlation with practical work. It considers mainly commercial education in secondary schools, because in these pedagogic training is most urgent.

PROFESSIONAL EDUCATION.

1853. Graves, William W. Some factors tending toward adequate instruction in nervous and mental diseases. Journal of the American medical association, 63: 1707-13, November 14, 1914.
Discusses the present degree of indifference on the part of the medical profession generally toward neurology and psychiatry. Says that the standard medical curriculum of the schools does not devote sufficient time and space to these studies. Gives statistics of 85 medical schools in the United States showing time and place factors in neurology and psychiatry in the clinical years of the institutions. Says that medical educators "should consider neurology and psychiatry as fundamental and not as highly specialized clinical branches."
1854. Meltzer, S. J. Headship and organization of clinical departments of first-class medical schools. Science, n. s. 40: 620-28, October 30, 1914.
Says that election to headship "must be based upon evidence that for the past years the appointee has been continuously a close student of modern medicine and showed efficiency in teaching, as well as in research, in the scientific and practical fields of medicine. The work of the department should be conducted with the aid of all three classes or groups, but especially with the aid of the scientific assistants."
1855. Whipple, George C. Public health education. Science, n. s. 40: 581-88, October 23, 1914.
Discusses the school for health officers conducted by Harvard university and the Massachusetts institute of technology. Gives curriculum. Thinks it a mistake "to make the medical degree a prerequisite to public health positions."

1856. Wormser, I. M. The results of a comparative study of the examination questions framed by state boards of bar examiners. *Yale law journal*, 24:34-42, November 1914.
Advocates raised standards of admission to the bar.

CIVIC EDUCATION.

1857. Kiernan, Frank. The great adventure of democracy. Preparing for it by self-government in the public schools. *Craftsman*, 26:626-30, September 1914.
Good results from student self-government.
1858. Swain, Joseph. The relation of the teacher to American citizenship. *American primary teacher*, 33:86-87, November 1914.

BOY SCOUTS.

1859. Oakes, G. H. Mayer. The educational aspect of the boy scout movement. *American schoolmaster*, 7:337-51, October 1914.
A short survey of the boy scout movement, its organization and methods.
1860. Reaney, M. Jane. The psychology of the boy scout movement. *Pedagogical seminary*, 21:407-11, September 1914.

EDUCATION OF WOMEN.

1861. Cauer, Friedrich. *Primaner und primanerin. Frauenbildung*, 13:314-20, August 1914.
A dissenting reply to Gymnasialdirektor Dr. Georg Rosenthal's article on the same question in an earlier number of the same periodical.
A second reply to Dr. Rosenthal's article, by Rassfeld, follows in the same periodical, p. 320-27.
1862. Martin, Gertrude S. The education of women and sex equality. *Annals of the American academy of political and social science*, 56:39-46, November 1914.
Says that woman is working her way "slowly and sometimes painfully toward a solution of her peculiar problem—how to reconcile the conflicting claims of her own individuality and of the race."
1863. Rosenthal, Georg. *Der primaner und die primanerin; versuch einer vergleichenden charakteristik. Frauenbildung*, 13:217-30, May 1914.
A comparison of the differences in attitude to their studies of the young men and the young women in the upper classes of a gymnasium and a höhere Mädchenschule in Berlin. On the whole, the young men are credited with higher qualifications. On the other hand, the writer wishes to be fair, and presents his conclusions as tentative conclusions only, incidentally making very acute reflections on pedagogical methods and purposes.
1864. Wood, Mary I. Civic activities of women's clubs. *Annals of the American academy of political and social science*, 56:78-87, November 1914.
Foreword written by Mrs. P. V. Pennybacker. Work of women's clubs in promoting libraries, manual training, etc.

NEGROES AND INDIANS.

1865. Brown, John B. Indian school gardens in eastern Oklahoma. *Southern workman*, 43:623-26, November 1914.
1866. Brown, John B. The "way out" for the Indian. *Indian school journal*, 15:119-22, November 1914.
Extracts from an address before the Northeastern Oklahoma teachers' association.
The author thinks that the "way out" for the Indian is through the public school.

1867. Washington, Booker T. A remarkable triple alliance: how a Jew is helping the negro through the Y. M. C. A. Outlook, 108:485-92. October 28, 1914.

The philanthropies of Julius Rosenwald. Educational activities of Young Men's Christian association.

EDUCATION OF DEFECTIVES.

1868. Pierce, Jerry A. The experience system of speech. Volta review, 16: 739-44, October 1914.

Writer says there is a strong similarity between learning a new language and acquiring a knowledge of speech-reading.

1869. Reeves, Edith. Care and education of crippled children in the United States. Introduction by H. H. Hart. New York, Survey associates, inc., 1914. 252 p. illus. 8°. (Russell Sage foundation publication.)

EDUCATION EXTENSION.

1870. Kruse, Paul J. Some problems of the evening school. School review, 22: 591-600, November 1914.

Problems connected with the instruction of foreigners in English and civics. Selection of teachers, etc. Presents tables of statistics showing general attendance on evening schools since 1902-3.

1871. Wirt, William. A plan of organization for co-operative and continuation courses. School journal, 81: 263-66, 280-81, October 1914.

"We present the report of Mr. Wirt in detail, for it not only gives a clear idea of the purposes of the Gary plan, but also shows how that plan may be used in any school system."—Editor.

LIBRARIES AND MUSEUMS.

1872. Herbert, Clara W. Children's libraries in the United States. Journal of education (London) 46: 789-91, November 2, 1914 (supplement).

Children's departments in public libraries. Cost of maintenance in 26 American cities, etc.

1873. Oliver, Thomas Edward. An American reader's impressions of some great European libraries. Public libraries, 19: 377-82, November 1914.

Writer visited the Royal library of Berlin, and one or two libraries in southern Germany, including Heidelberg; then the several great libraries of Paris, especially the Bibliothèque nationale; and finally the British museum in London.

1874. Rathmann, C. G. The museum and the schools in Europe. [Pittsburgh, Pa., 1914] p. 107-19. 8°.

Reprinted from the Proceedings of the American association of museums, vol. viii, 1914.

1875. Root, Azariah S. The future development of college and university libraries. Library journal, 39: 811-15, November 1914.

An address given before the New York library association at Ithaca, September 10, 1914.

1876. Warren, Irene. Teaching the use of books and libraries. Education, 35: 157-63, November 1914.

Says that libraries in elementary, high, and advanced schools "need to be systematically organized by expert librarians, who have also a knowledge of school aims and methods."

BUREAU OF EDUCATION: RECENT PUBLICATIONS.

1877. Agricultural teaching. Papers presented at the fourth annual meeting of the American association for the advancement of agricultural teaching, Washington, D. C., November 11, 1913. Washington, 1914. 87 p. (Bulletin, 1914, no. 27)

1878. Bibliography of the relation of secondary schools to hig
compiled by Raymond Lowrey Walkley. Washington
(Bulletin, 1914, no. 32)
1879. Danish elementary rural schools, with some reference to
the training of rural teachers, by H. W. Foght. Wa
45 p. plates. (Bulletin, 1914, no. 24)
1880. Important features in rural-school improvement, compiled
reports of rural superintendents to the Bureau of Educa
Hodges. Washington, 1914. 55 p. (Bulletin, 1914, no. :
1881. The kindergarten in benevolent institutions. Washington
(Bulletin, 1914, no. 29)
1882. The Montessori method and the kindergarten, by Eliza
Washington, 1914. 84 p. (Bulletin, 1914, no. 28)
1883. Music in the public schools, by Will Earhart. Washingto
(Bulletin, 1914, no. 33)
1884. Rural schoolhouses and grounds, by Fletcher B. Dresslar.
1914. 162 p. 44 plates. (Bulletin, 1914, no. 12)
1885. Some trade schools in Europe, by Frank L. Glynn. Wa
76 p. plates. (Bulletin, 1914, no. 23)

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EDUCATIONAL DIRECTORY

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Z. M. Smith.....	Supervisor of agricultural education.....	Do.
A. O. Neal.....	High-school inspector.....	Do.
Adelaide Steele Baylor.....	General assistant.....	Do.
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Miss Nellie M. Wilkins.....	do.....	Do.
Michigan:		
Fred L. Keeler.....	State superintendent of public instruction.....	Lansing.
John M. Munson.....	Deputy superintendent.....	Do.
G. N. Otwell.....	Assistant superintendent.....	Do.
Sara M. Nicholson.....	County normal supervisor.....	Do.
Minnesota:		
C. G. Schulz.....	State superintendent of education.....	St. Paul.
P. C. Tonning.....	Assistant.....	Do.
G. M. Cesander.....	do.....	Do.
E. M. Phillips.....	High-school inspector.....	Do.
Martha Wilson.....	Supervisor of school libraries.....	Do.
E. T. Critchett.....	Assistant inspector.....	Minneapolis.
S. A. Chalman.....	Commissioner of school buildings.....	Do.
B. B. McLean.....	Graded school inspector.....	St. Paul.
E. T. Critchett.....	Assistant inspector.....	Do.
Mabel Carney.....	Supervisor teachers' training departments.....	Do.
C. C. Swain.....	Rural school commissioner.....	Do.
Mississippi:		
W. H. Smith.....	State superintendent of public education.....	Jackson.
J. C. Fant.....	State high-school inspector.....	University.
J. T. Calhoun.....	State supervisor of rural schools.....	Jackson.
Miss Susie V. Powell.....	State supervisor of school improvement.....	Do.
Missouri:		
William P. Evans.....	State superintendent of public schools.....	Jefferson City.
G. H. Reavis.....	Teacher-training inspector.....	Do.
W. L. Barrett.....	High-school inspector.....	Do.
B. F. Melcher.....	do.....	Do.
G. W. Reavis.....	Rural-school inspector.....	Do.
Montana:		
H. A. Davee.....	State superintendent of public instruction.....	Helena.
H. H. Swain.....	Deputy.....	Do.
C. W. Tenney.....	Rural-school inspector.....	Do.
Nebraska:		
A. O. Thomas.....	State superintendent of public instruction.....	Lincoln.
Robert I. Elliott.....	Deputy superintendent of public instruction.....	Do.
G. A. Gregory.....	Normal training inspector.....	Do.
Edith A. Lathrop.....	Rural-school inspector.....	Do.
Nevada:		
John Edwards Bray.....	State superintendent of public instruction.....	Carson City.
George E. Anderson.....	Deputy.....	Elko.
J. W. Palmer.....	do.....	Ely.
James F. Abel.....	do.....	Winnemucca.
E. E. Winfrey.....	do.....	Reno.
B. G. Bleasdale.....	do.....	Las Vegas.
New Hampshire:		
H. C. Morrison.....	State superintendent of public instruction.....	Concord.
George H. Whit cher.....	Deputy.....	Berlin.
Harriet L. Huntress.....	do.....	Concord.
Harry A. Brown.....	do.....	Colebrook.
Robert J. Mitchell.....	Inspector child labor service.....	Concord.
John Bishop.....	do.....	Do.
C. H. Duffee.....	Inspector attendance service.....	Do.

II.—PRINCIPAL STATE SCHOOL OFFICERS—(Continued.)

States and officers.	Official designation.	Address.
New Jersey:		
Calvin N. Kendall.....	State commissioner of education.....	Trenton.
J. Brognard Betts.....	Deputy commissioner and in charge of legal controversies.	Do.
A. B. Meredith.....	Assistant commissioner in charge of secondary schools.	Do.
J. J. Savitz.....	Assistant commissioner in charge of elementary schools.	Do.
Lewis H. Carris.....	Assistant commissioner in charge of industrial education, including agriculture.	Do.
New Mexico:		
.....	State superintendent of public instruction.....	Santa Fe.
.....	Assistant superintendent of public instruction.....	Do.
.....	State director of industrial education.....	Do.
New York:		
.....	State commissioner of education.....	Albany.
.....	Assistant commissioner for higher education.....	Do.
.....	Assistant commissioner for secondary education.....	Do.
.....	Assistant commissioner for elementary education.....	Do.
.....	Director of State library.....	Do.
.....	Director of science and State museum.....	Do.
.....	Chief of administration division.....	Do.
.....	Chief of attendance division.....	Do.
.....	Chief of educational extension division.....	Do.
.....	Chief of examinations division.....	Do.
.....	Chief of history division.....	Do.
.....	Chief of inspections division.....	Do.
.....	Chief of law division.....	Do.
.....	Vice director library school.....	Do.
.....	Chief of public records division.....	Do.
.....	Chief of school libraries division.....	Do.
.....	Chief of statistics division.....	Do.
.....	Chief of visual instruction division.....	Do.
.....	Chief of vocational schools division.....	Do.
Thomas C. Quinn.....	Chief of public records division.....	Do.
Sherman Williams.....	Chief of school libraries division.....	Do.
Hiram C. Case.....	Chief of statistics division.....	Do.
Alfred W. Abrams.....	Chief of visual instruction division.....	Do.
Arthur D. Dean.....	Chief of vocational schools division.....	Do.
North Carolina:		
J. Y. Joyner.....	State superintendent of public instruction.....	Raleigh.
L. C. Brogden.....	State supervisor of elementary rural schools.....	Do.
N. C. Newbold.....	Associate supervisor of elementary schools.....	Do.
E. E. Sams.....	Supervisor of teacher training.....	Do.
N. W. Walker.....	Inspector of public high schools.....	Chapel Hill.
T. E. Browne.....	Agent agricultural extension.....	Raleigh.
S. S. Alderman.....	Secretary North Carolina educational campaign..	Do.
North Dakota:		
Edwin J. Taylor.....	State superintendent of public instruction.....	Bismarck.
W. E. Parsons.....	Deputy.....	Do.
R. Heyward.....	High-school inspector.....	Grand Forks.
N. C. Macdonald.....	State rural-school inspector.....	Valley City.
Ohio:		
Frank W. Miller.....	Superintendent of public instruction.....	Columbus.
J. L. Clifton.....	Assistant superintendent of public instruction...	Do.
Henry G. Williams.....	Normal-school supervisor.....	Do.
W. A. McCurdy.....	Rural-school supervisor.....	Do.
C. E. Oliver.....	High-school inspector.....	Do.
E. F. Warner.....	do.....	Do.
J. E. Clarke.....	Supervisor of agricultural education.....	Do.
L. S. Ivins.....	do.....	Lebanon.
B. A. Harbourt.....	do.....	Andover.
H. L. Goll.....	do.....	Swanton.
F. B. Pearson.....	High-school inspector.....	Columbus.
F. C. Landittel.....	do.....	Do.
W. E. Sealock.....	do.....	Do.
George R. Twiss.....	do.....	Do.
Samuel L. Eby.....	do.....	Do.
Oklahoma:		
Robert H. Wilson.....	State superintendent of public instruction.....	Oklahoma City.
E. A. Duke.....	Assistant superintendent.....	Do.
Henry J. Miller.....	Agricultural assistant.....	Do.
A. C. Parsons.....	High-school inspector.....	Do.
Oregon:		
J. A. Churchill.....	State superintendent of public instruction.....	Salem.
E. F. Carleton.....	Assistant State superintendent.....	Do.
Frank K. Welles.....	do.....	Do.
Pennsylvania:		
Nathan C. Schaeffer.....	State superintendent of public instruction.....	Harrisburg.
A. D. Glenn.....	Deputy superintendent.....	Do.
Reed B. Teltrick.....	do.....	Do.
C. D. Koch.....	High-school inspector.....	Do.
Thos. B. Marsh.....	do.....	Do.
W. M. Denison.....	do.....	Do.
James G. Pentz.....	do.....	Do.
M. B. King.....	Expert for industrial education.....	Do.
L. H. Dennis.....	Expert for agricultural education.....	Do.

II.—PRINCIPAL STATE SCHOOL OFFICERS—Continued.

States and officers.	Official designation.	Address.
Philippine Islands:		
Frank L. Crone.....	Director of education.....	Manila.
C. H. Magee.....	Assistant director of education.....	Do.
Porto Rico:		
Edward M. Bainter.....	Commissioner of education.....	San Juan.
Frederick E. Libby.....	Assistant commissioner.....	Do.
Wilfred A. Barlow.....	General superintendent.....	Do.
Jose Padin.....	do.....	Do.
Henry F. Rockey.....	do.....	Do.
Enrique C. Hernández.....	Supervisor of Spanish.....	Do.
Rhode Island:		
Walter E. Ranger.....	Commissioner of public schools.....	Providence
Valentine Almy.....	Assistant commissioner.....	Do.
South Carolina:		
J. E. Swearingen.....	State superintendent of education.....	Columbia.
J. A. Stoddard.....	Assistant State superintendent.....	Do.
.....	State high-school inspector.....	Do.
Lueco Gunter.....	State supervisor of elementary rural schools.....	Do.
South Dakota:		
C. H. Lugg.....	State superintendent of public instruction.....	Pierre.
Oliver O. Young.....	Deputy superintendent.....	Do.
Tennessee:		
Samuel H. Thompson.....	State superintendent of public instruction.....	Nashville.
William R. Bourne.....	State high-school inspector.....	Do.
M. W. Robinson.....	Supervisor high-school industrial work.....	Do.
J. B. Browne.....	State elementary-school inspector.....	Do.
Virginia P. Moore.....	State school-improvement organizer.....	Do.
Mrs. Pearl Williams Kelly.....	State school-library organizer.....	Do.
S. L. Smith.....	Supervisor elementary colored schools.....	Do.
Texas:		
W. F. Doughty.....	State superintendent of public instruction.....	Austin.
S. H. Whitley.....	Assistant.....	Do.
Utah:		
E. G. Gowans.....	State superintendent of public instruction.....	Salt Lake City.
Mosiah Hall.....	State high-school inspector.....	Do.
Vermont:		
Mason S. Stone.....	State superintendent of education.....	Montpelier.
Virginia:		
R. C. Stearnes.....	State superintendent of public instruction.....	Richmond.
A. Lucius Lincoln.....	State school inspector.....	Do.
John B. Terrell.....	do.....	Do.
E. E. Worrell.....	do.....	Do.
Jackson Davis.....	State inspector for colored schools.....	Do.
Mrs. L. R. Dashiell.....	State organizer of school-improvement associations.....	Richmond.
Washington:		
Mrs. Josephine Preston.....	State superintendent of public instruction.....	Olympia.
C. A. Sprague.....	Assistant superintendent.....	Do.
Martha A. Sherwood.....	Deputy superintendent.....	Do.
Edwin Twitmyer.....	High-school inspector.....	Seattle.
Mrs. Mary Arnold Bryan.....	Secretary State board of examiners.....	Olympia.
C. C. Thomason.....	Supervisor of boys' and girls' fairs, etc.....	Do.
West Virginia:		
M. P. Shawkey.....	State superintendent of free schools.....	Charleston.
L. L. Friend.....	Supervisor of high schools.....	Morgantown.
L. J. Hanifan.....	Supervisor of rural schools.....	Charleston.
Geo. E. Hubbs.....	Supervisor of examinations.....	Do.
J. F. Marsh.....	Secretary State board of regents.....	Do.
M. J. Abbey.....	Supervisor of agricultural education.....	Do.
W. W. Saunders.....	Assistant supervisor of rural schools (colored).....	Do.
Wisconsin:		
C. P. Cary.....	State superintendent of public schools.....	Madison.
J. B. Borden.....	Assistant State superintendent.....	Do.
Warren E. Hicks.....	Assistant for industrial education.....	Do.
H. L. Terry.....	High-school inspector.....	Do.
H. N. Goddard.....	do.....	Do.
Emma Conley.....	Inspector of domestic science.....	Do.
A. B. Cook.....	Inspector of schools for the deaf.....	Do.
Geo. H. Drewry.....	State school inspector.....	Do.
Walter H. Hunt.....	do.....	Do.
W. T. Anderson.....	do.....	Do.
A. A. Thomson.....	Inspector of rural schools.....	Do.
Walter E. Larson.....	State inspector of rural schools.....	Do.
Wyoming:		
Edith K. O. Clark.....	State superintendent of public instruction.....	Cheyenne.
Mae Woodruff.....	Deputy.....	Do.

III.—OFFICERS OF STATE BOARDS OF EDUCATION.¹

Officers of the board.	Post-office address.	Other official title.
George W. P. Hunt, chairman ²	Phoenix, Ariz.....	Governor.
C. O. Case, secretary.....	do.....	State superintendent of public instruction.
George B. Cook, chairman.....	Little Rock, Ark.....	Do.
B. W. Torreyson, secretary.....	do.....	
W. H. Langdon, president.....	Modesto, Cal.....	
Edward Hyatt, secretary.....	Sacramento, Cal.....	State superintendent of public instruction.
Mrs. Mary C. C. Bradford, president.....	Denver, Colo.....	Do.
John Ramer, secretary.....	do.....	Secretary of state.
Marcus T. Holcomb, president ²	Southington, Conn.....	Governor.
Charles D. Hine, secretary.....	Hartford, Conn.....	
Henry Ridgely, chairman.....	Wilmington, Del.....	
Charles A. Wagner, secretary.....	Dover, Del.....	State commissioner of education.
Henry P. Blair, president.....	Washington, D. C.....	
H. O. Hine, secretary.....	do.....	
Park Trammell, president.....	Tallahassee, Fla.....	Governor.
W. N. Sheats, secretary.....	do.....	State superintendent of public instruction.
Nat E. Harris, president ²	Atlanta, Ga.....	Governor.
M. L. Brittain, secretary.....	do.....	State superintendent of schools.
David L. Evans, president.....	Malad, Idaho.....	
H. Harland, secretary.....	Payette, Idaho.....	
Charles A. Greathouse, president.....	Indianapolis, Ind.....	Do.
W. W. Parsons, secretary.....	Terre Haute, Ind.....	
James H. Trewin, president.....	Cedar Rapids, Iowa.....	
D. A. Emery, secretary.....	Des Moines, Iowa.....	Do.
W. D. Ross, president.....	Topeka, Kans.....	Assistant State superintendent.
L. D. Whittemore, secretary.....	do.....	State superintendent of public instruction.
Barksdale Hamlett, chairman.....	Frankfort, Ky.....	Secretary of state.
C. F. Crecilius, secretary.....	do.....	Governor.
Luther E. Hall, president.....	Baton Rouge, La.....	State superintendent of public education.
T. H. Harris, secretary.....	do.....	Governor.
P. L. Goldsborough, president.....	Annapolis, Md.....	State superintendent of public education.
M. Bates Stephens, secretary.....	do.....	
Frederick P. Fish, chairman.....	Boston, Mass.....	State commissioner of education.
David Snedden, executive officer.....	do.....	
W. J. McKone, president.....	Albion, Mich.....	State superintendent of public instruction.
Fred L. Keeler, secretary.....	Lansing, Mich.....	State superintendent of public education.
W. H. Smith, president.....	Jackson, Miss.....	
J. W. Power, secretary.....	do.....	
Howard A. Gass, president.....	Jefferson, Mo.....	State superintendent of public schools.
Cornelius Roach, secretary.....	do.....	Secretary of state.
S. V. Stewart, president.....	Helena, Mont.....	Governor.
H. A. Davee, secretary.....	do.....	State superintendent of public instruction.
Tasker L. Oddle, president.....	Carson City, Nev.....	Governor.
John E. Bray, secretary.....	do.....	State superintendent of public instruction.
Wm. G. Schauffler, president.....	Lakewood, N. J.....	
Calvin N. Kendall, secretary.....	Trenton, N. J.....	State commissioner of education.
Wm. C. McDonald, president.....	Santa Fe, N. Mex.....	Governor.
Alvan N. White, secretary.....	do.....	State superintendent of public instruction.
St. Clair McKelway, chancellor of the university.....	Brooklyn, N. Y.....	
John H. Finley, chief executive officer.....	Albany, N. Y.....	State commissioner of education and president of the university.
Locke Craig, president.....	Raleigh, N. C.....	Governor.
J. Y. Joyner, secretary.....	do.....	State superintendent of public instruction.
E. J. Taylor, president.....	Bismarck, N. Dak.....	Superintendent of public instruction.
W. E. Parsons, secretary.....	do.....	Deputy superintendent of public instruction.
R. H. Wilson, chairman.....	Oklahoma City, Okla.....	State superintendent of public instruction.
L. T. Huffman, secretary.....	do.....	
James Withycomb, president ²	Salem, Oreg.....	Governor.
J. A. Churchill, secretary.....	do.....	State superintendent of public instruction.
Nathan C. Schaeffer, president.....	Harrisburg, Pa.....	Do.
J. George Becht, executive secretary.....	do.....	
R. L. Beeckman, president ²	Woonsocket, R. I.....	Governor.
Walter E. Ranger, secretary.....	Providence, R. I.....	Commissioner of public schools.
Richard I. Manning, chairman ²	Columbia, S. C.....	Governor.
J. E. Swearingen, secretary.....	do.....	State superintendent of education.
Thomas C. Rye, president ²	Nashville, Tenn.....	Governor.

¹ Thirty-seven States have State boards of education, as here indicated; the others have none.² Elected November, 1914.

III.—OFFICERS OF STATE BOARDS OF EDUCATION—Continued.

Officers of the board.	Post-office address.	Other official title.
Samuel H. Thompson, secretary....	Nashville, Tenn.....	State superintendent of public instruction.
James E. Ferguson, president ¹	Austin, Tex.....	Governor.
W. F. Doughty, secretary.....	do.....	State superintendent of public instruction.
A. C. Matheson, chairman.....	Salt Lake City, Utah....	Do.
J. T. Kingsbury, secretary.....	do.....	Do.
R. C. Stearnes, president.....	Richmond, Va.....	Do.
E. R. Chesterman, secretary.....	do.....	Do.
Mrs. Josephine C. Preston, president.....	Olympia, Wash.....	Do.
Martha A. Sherwood, secretary.....	do.....	Deputy superintendent of public instruction.
M. P. Shawkey, president.....	Charleston, W. Va.....	State superintendent of free schools.
J. D. Garrison, secretary.....	Middlebourne, W. Va....	

¹ Elected November, 1914.IV.—EXECUTIVE OFFICERS OF STATE LIBRARY COMMISSIONS.¹

Executive officer.	Post-office address.	Name of commission.
Thomas M. Owen, director.....	State Capitol, Montgomery, Ala.	State department of archives and history, library extension division.
James L. Gills, State librarian.....	Sacramento, Cal.....	California State library.
C. R. Dudley, president.....	Public Library, Denver, Colo.	State board of library commissioners.
Carrie M. Cushing, librarian and clerk.	The Capitol, Denver, Colo.	State traveling library commission.
Mrs. Belle H. Johnson, library visitor.	State Capitol, Hartford, Conn.	Connecticut public library committee.
Thomas W. Wilson, secretary.....	State Library, Dover, Del.	State library commission.
Mrs. Percival Sneed, organizer.....	Carnegie Library, Atlanta, Ga.	Do.
Margaret S. Roberts, secretary.....	State House, Boise, Idaho.	Do.
Anna M. Price, secretary.....	Springfield, Ill.....	Illinois library extension commission.
Henry N. Sanborn, secretary.....	State House, Indianapolis, Ind.	State public library commission.
Julia A. Robinson, secretary.....	State Historical Building, Des Moines, Iowa.	State library commission.
Mrs. Adrian Greene, secretary.....	State Library, Topeka, Kans.	Kansas traveling libraries commission.
Fannie C. Rawson, secretary.....	Capitol, Frankfort, Ky..	Kentucky library commission.
Henry C. Prince, secretary.....	State Library, Augusta, Me.	State library commission.
Bernard C. Steiner, secretary.....	Enoch Pratt Free Library, Baltimore, Md.	Maryland public library commission.
E. Louise Jones, temporary agent...	State Library, Boston, Mass.	Massachusetts free public library commission.
Mrs. Mary C. Spencer, secretary.....	State Library, Lansing, Mich.	State board of library commissioners.
Clara F. Baldwin, secretary.....	The Capitol, St. Paul, Minn.	State public library commission.
Elizabeth B. Wales, secretary.....	202 Washington S., Jefferson City, Mo.	Missouri library commission.
Charlotte Templeton, secretary.....	The Capitol, Lincoln, Nebr.	State public library commission.
Arthur H. Chase, secretary.....	State Library, Concord, N. H.	Do.
Henry C. Buchanan, secretary.....	State Library, Trenton, N. J.	Do.
William R. Watson, chief of division.	Albany, N. Y.....	Division of educational extension, University of the State of New York.
Minnie W. Leatherman, secretary...	Raleigh, N. C.....	North Carolina library commission.
Mrs. Minnie C. Budlong, secretary and director.	The Capitol, Bismarck, N. Dak.	State public library commission.
J. H. Newman, secretary.....	State Library, Columbus, Ohio.	State board of library commissioners.
Cornelia Marvin, librarian.....	Supreme court building, Salem, Oreg.	State library.
T. L. Montgomery, secretary.....	State Library, Harrisburg, Pa.	Pennsylvania free library commission.
Walter F. Ranger, secretary.....	State House, Providence, R. I.	State committee on libraries, Rhode Island State education department.
Lilly M. E. Borresen, field librarian..	State House, Pierre, S. Dak.	State free library commission.

¹ Thirty-six States have library commissions, as here indicated.

IV.—EXECUTIVE OFFICERS OF STATE LIBRARY COMMISSIONS—(Continued.)

Executive officer.	Post-office address.	Name of commission.
Mrs. Pearl W. Kelley, director.....	Nashville, Tenn.....	Tennessee, department of education, division of library extension.
Ernest W. Winkler, secretary.....	State Library, Austin, Tex.	State library and historical commission
Howard R. Driggs, secretary.....	University of Utah, Salt Lake City, Utah.	Library gymnasium of State board of education.
Mary E. Downey, State library organizer.	Salt Lake City, Utah....	Do.
Rebecca W. Wright, secretary.....	34 Elm St., Montpelier, Vt.	State free public library commission.
H. R. McIlwaine, librarian.....	State Library, Richmond, Va.	Virginia State library.
J. M. Hitt, secretary.....	State Library, Olympia, Wash.	State library commission.
Matthew S. Dudgeon, secretary.....	The Capitol, Madison, Wis.	Wisconsin free library commission.

V.—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER.

City.	Population, census of 1910.	Superintendent.	Term of office in years.	Date of original appointment.	Expiration of present term.
ALABAMA.					
Alabama City.....	4,313	Jay D. Bradley.....	1	— —, 1912	June 1, 1915
Anniston.....	12,794	D. R. Murphey.....	1	— —, 1908	July 1, 1915
Bessemer.....	10,864	Augustus A. Persons.....	1	July 1, 1908	July 1, 1915
Birmingham.....	132,685	John H. Phillips.....	5	July —, 1883	June 30, 1915
Decatur.....	4,228	J. M. Collier.....	1	Apr. —, 1913	— —, 1915
Dothan.....	7,016	James V. Brown.....	1	June 30, 1908	June 30, 1915
Eufaula.....	4,259	Herman L. Upshaw.....	3	Jan. 1, 1911	June —, 1915
Florence.....	6,689	Henry B. Norton.....	1	July 1, 1913	July 1, 1915
Gadsden.....	10,557	William C. Griggs.....	2	July —, 1912	June 30, 1915
Girard.....	4,214	R. A. Gamble.....	1	June —, 1914	June —, —
Huntsville.....	7,611	R. C. Johnston.....	1	June —, 1913	June 1, 1915
Mobile.....	51,521	Samuel S. Murphy.....	4	Sept. 1, 1900	Sept. —, 1916
Montgomery.....	38,136	Charles L. Floyd.....	2	July 1, 1889	June 30, 1915
New Decatur.....	6,118	William F. Jones.....	3	July 1, 1909	June 30, 1917
Opelika.....	4,734	Floy Hall.....	1	July 1, 1910	June 30, 1915
Phoenix.....	4,555	Alice Coulter.....	1	May —, 1914	May —, 1915
Selma.....	13,649	Arthur F. Harman.....	1	July 1, 1908	June 30, 1915
Sheffield.....	4,865	W. P. Johnson.....	1	June —, 1911	July —, 1915
Talladega.....	5,854	D. A. McNeill.....	2	— —, 1906	June —, 1915
Troy.....	4,961	John R. McLure.....	1	May —, 1911	May 15, 1915
Tuscaloosa.....	8,407	J. H. Foster.....			
Union Springs.....	4,055	E. S. Pugh.....	2	May —, 1912	July 31, 1916
ARIZONA.					
Bisbee.....	9,019	Charles F. Philbrook.....	1	Sept. —, 1904	Aug. 31, 1915
Clifton.....	4,874	Harvey C. Williams.....	1	Apr. 18, 1914	June 30, 1915
Douglas.....	6,437	Wm. E. Lutz.....	1	Jan. 1, 1906	July 31, 1915
Globe.....	7,083	R. T. Cook.....	1	Aug. 1, 1914	July 31, 1915
Morenci.....	5,010	C. O. Goggins.....			
Phoenix.....	11,134	John D. Loper.....	1	July 1, 1909	June 30, 1915
Prescott.....	5,092	Warren D. Baker.....	1	Aug. 1, 1908	June 30, 1915
Tucson.....	13,193	Sidney C. Newson.....	2	June —, 1908	June 1, 1916
ARKANSAS.					
Argenta.....	11,138	D. L. Paisley.....	1	June —, 1911	May —, 1915
El Dorado.....	4,202	Thomas C. Abbott.....	1	Sept. —, 1909	Sept. —, 1915
Fayetteville.....	4,471	Frank S. Root.....	1	July 1, 1908	July 1, 1915
Fort Smith.....	23,975	James W. Kuykendall.....	1	May 25, 1905	June 30, 1915
Helena.....	8,772				
Hot Springs.....	14,434	Matt Rose.....	1	July 1, 1910	July 1, 1915
Jonesboro.....	7,123	Charles F. Garrett.....	2	June —, 1913	Sept. 1, 1916
Little Rock.....	45,941	R. C. Hall.....	1	June —, 1909	June —, 1915
Mariana.....	4,810	T. A. Futrall.....	2	— —, 1908	Nov. 30, 1916
Paragould.....	5,248	Louis B. Ray.....	1	June —, 1912	July —, 1915
Pine Bluff.....	15,102	Junius Jordan.....	3	June —, 1904	May 30, 1915
Texarkana.....	5,655	Geo. W. Reid.....	1	— —, 1910	May 31, 1915
CALIFORNIA.					
Alameda.....	23,383	Clarence J. Du Four.....	4	Dec. 23, 1913	Jan. 1, 1918
Alhambra.....	5,021	M. R. Parmelee.....	1	July 1, 1913	July 1, 1915
Bakersfield.....	12,727	David W. Nelson.....	4	June 30, 1896	June 30, 1918
Berkeley.....	40,434	Morris C. James.....	4	July 1, 1912	June 30, 1916
Coalinga.....	4,199	Anna M. Steele ¹	1	June —, 1909	June 1, 1915

¹ Supervising principal.

V.—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER—(Con.)

City.	Population, census of 1910.	Superintendent.	Term of office in years.	Date of original appointment.	Expiration of present term.
CALIFORNIA—contd.					
Eureka.....	11,845	George B. Albee.....	.....	May 1, 1914	July 1, 1915
Fresno.....	24,892	Charles C. Starr.....	4	May —, 1913	July 1, 1917
Grass Valley.....	4,520	James S. Hennessey ²	1	July —, 1902	July 1, 1915
Hanford.....	4,829	Mrs. Nannie E. Davidson ¹	4	Jan. —, 1903	Jan. —, 1915
Long Beach.....	17,809	Wm. L. Stephens.....	4	June —, 1912	Aug. 1, 1916
Los Angeles.....	319,198	J. H. Francis.....	4	Aug. 1, 1910	June 30, 1918
Marysville.....	5,430	William P. Cramsie.....	4	Jan. 1, 1911	Jan. 1, 1915
Modesto.....	4,034	Thomas Downey.....	2	July 1, 1900	July 1, 1915
Monterey.....	4,923	Geo. Schultzberg ²	1	July —, 1907	—, 1915
Napa.....	5,791	John L. Shearer ²	1	—, 1906	May 28, 1915
Oakland.....	150,174	Albert C. Barker.....	4	May 12, 1913	June 30, 1917
Ontario.....	4,274	John W. Groves ²	1	June 5, 1914	June 5, 1915
Palo Alto.....	4,486	Joseph C. Templeton.....	1	May —, 1907	June 28, 1915
Pasadena.....	30,291	Jeremiah M. Rhodes.....	4	Aug. —, 1911	June 30, 1915
Petaluma.....	5,880	Eldredge B. Dykes ²	1	July 1, 1908	June 30, 1915
Pomona.....	10,207	G. V. Bennett.....	4	July 1, 1914	Aug. 4, 1918
Redlands.....	10,449	Charles H. Covell.....	4	July 1, 1909	June 30, 1915
Richmond.....	6,802	Walter T. Helms.....	4	—, 1901	—, 1917
Riverside.....	15,212	Arthur N. Wheelock.....	4	June —, 1907	June —, 1915
Sacramento.....	44,696	Charles C. Hughes.....	4	Feb. —, 1913	Jan. —, 1918
San Bernardino.....	12,779	Francis W. Conrad.....	4	June —, 1902	June —, 1915
San Diego.....	39,578	Duncan MacKinnon.....	4	July 1, 1906	July 1, 1918
San Francisco.....	416,912	Alfred Roncovieri.....	4	Jan. 8, 1906	Jan. 7, 1915
San Jose.....	28,946	Alexander Sheriffs.....	4	July 1, 1906	July 1, 1918
San Luis Obispo.....	5,157	Arthur H. Mabley.....	1	May —, 1913	June 30, 1915
San Mateo.....	4,384	George W. Hall ¹	4	Jan. —, 1908	July —, 1914
San Rafael.....	5,934	David R. Jones.....	4	Jan. —, 1913	Dec. 31, 1917
Santa Ana.....	8,429	R. P. Mitchell.....	4	Mar. 5, 1908	Jan. 1, 1915
Santa Barbara.....	11,659	Albert C. Olney.....	4	Jan. 1, 1914	June 30, 1917
Santa Clara.....	4,348	W. J. Hayward.....	2	—, 1906	June 30, 1916
Santa Cruz.....	11,146	John W. Linscott.....	4	July 1, 1907	June 30, 1915
Santa Monica.....	7,847	Horace M. Rebok.....	.....	.....	.....
Santa Rosa.....	7,817	Thomas F. Brownscombe.....	4	Aug. —, 1910	Aug. —, 1917
South Pasadena.....	4,649	George C. Bush.....	4	Feb. 25, 1907	July 1, 1918
Stockton.....	23,253	Ansel S. Williams.....	.....	.....	.....
Vallejo.....	11,340	Guy V. Whaley.....	1	Jan. 1, 1913	July 1, 1915
Visalia.....	4,550	Alexander M. Simons ²	1	July 1, 1913	July 1, 1915
Watsonville.....	4,446	T. S. MacQuiddy ²	1	Mar. —, 1907	June 30, 1915
Whittier.....	4,550	Ulysses G. Durfee.....	1	July 1, 1913	June 30, 1915
COLORADO.					
Boulder.....	9,539	William V. Casey.....	(³)	—, 1884	.....
Canon City.....	5,162	William H. Ray.....	1	May —, 1911	May —, 1915
Colorado City.....	4,333	Elbert C. Best.....	1	Sept. 2, 1912	June 8, 1915
Colorado Springs.....	29,078	Carlos M. Cole.....	3	Sept. 1, 1910	Sept. 1, 1916
Cripple Creek.....	6,206	Wilson M. Shafer.....	1	—, 1902	Sept. —, 1915
Denver.....	213,381	William H. Smiley.....	1	Sept. —, 1912	Feb. —, 1915
Durango.....	4,686	Emory E. Smiley.....	1	July 1, 1906	June 30, 1915
Fort Collins.....	8,210	Albert H. Dunn.....	2	Apr. —, 1911	Apr. —, 1914
Grand Junction.....	7,754	John H. Allen.....	3	June 4, 1904	June —, 1916
Greeley.....	8,179	Charles E. Carter.....	3	July 1, 1903	June 30, 1916
La Junta.....	4,154	F. P. Austin.....	1	Aug. 1, 1912	July 31, 1915
Leadville.....	7,508	Geo. M. Hammers.....	1	Sept. 1, 1913	June 1, 1915
Longmont.....	4,256	Rae H. Kiteley.....	2	Sept. —, 1905	Sept. —, 1915
Pueblo:					
District No. 1.....		Frank D. Slutz.....	2	May —, 1912	May —, 1915
District No. 20.....	44,395	John F. Keating.....	3	July —, 1896	June 30, 1915
Salida.....	4,425	Edgar Kesner.....	3	June —, 1898	June 30, 1917
Trinidad.....	10,204	Jesse R. Morgan.....	2	Sept. —, 1909	Sept. —, 1916
CONNECTICUT.					
Ansonia.....	15,152	Richard T. Tobin.....	3	July 26, 1913	July 26, 1916
Branford.....	6,047	Herman S. Lovejoy.....	1	July —, 1908	June —, 1915
Bridgeport.....	102,054	Charles W. Deane.....	3	Aug. 20, 1893	Aug. 20, 1915
Bristol.....	13,502	Karl A. Reiche.....	1	July 14, 1913	July 14, 1915
Danbury.....	23,502	G. J. Borst.....	1	July —, 1913	July 31, 1915
Derby.....	8,991	Edward Fitzgerald.....	(³)	June —, 1912	.....
East Hartford.....	8,138	John W. Kratzer.....	1	Aug. —, 1912	July 31, 1915
Enfield.....	9,719	Edward B. Sellow.....	1	May —, 1913	Aug. 1, 1915
Fairfield.....	6,134	William E. Smith.....	3	July 15, 1914	July 4, 1917
Glastonbury.....	4,796	Leon A. Martin.....	1	—, 1910	June —, 1915
Greenwich.....	16,463	Edwin C. Andrews.....	1	Aug. 1, 1910	Sept. 1, 1915
Griswold.....	4,233	.....	.....	.....	.....
Groton.....	6,495	C. R. Heath.....	3	Oct. 8, 1892	Oct. —, 1915
Hamden.....	5,850	Margaret L. Keefe.....	1	Aug. —, 1912	June 8, 1915
Hartford.....	98,915	Thomas S. Weaver.....	1	—, 1901	June —, 1915

¹ County superintendent.² Supervising principal.³ Indefinite tenure.

V.—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER—(Con.)

City.	Population, census of 1910.	Superintendent.	Term of office in years.	Date of original appointment.	Expiration of present term.
CONNECTICUT—contd.					
Huntington.....	6,545	Harry E. Fowler.....	1	May —, 1910	Aug. 15, 1915
Killingly.....	6,564	Albert S. Ames.....	1	Nov. 15, 1910	July 1, 1914
Manchester:					
Town schools.....	13,641	A. F. Howes.....			
Ninth district.....		Fred A. Verplanck.....	1	Aug. —, 1903	July 14, 1915
Meriden.....	32,066	David Gibbs.....	(1)	—, 1911	
Middletown.....	11,851	William A. Wheatley.....	1	Jan. 1, 1910	July 1, 1915
Milford.....	4,366	Herbert I. Mathewson.....	1	—, 1911	—, 1915
Naugatuck.....	12,722	Frank W. Eaton.....	1	—, 1900	Sept. —, 1915
New Britain.....	43,916	Stanley H. Holmes.....	1	Aug. 1, 1906	Aug. 1, 1915
New Haven.....	133,605	Frank H. Beede.....	5	June —, 1900	Sept. —, 1916
New London.....	19,659	Charles B. Jennings.....	1	—, 1911	Sept. —, 1915
New Milford.....	5,010	John Pettibone.....	1	—, 1902	July 15, 1915
Norwalk.....	24,211	Ira T. Chapman.....	3	July 15, 1912	July 1, 1917
Norwich.....	28,219	Edward J. Graham.....	1	July —, 1912	July —, 1915
Orange.....	11,277	Edgar C. Stiles.....			
Plainfield.....	6,719	John L. Chapman.....	1	Aug. 1, 1905	Aug. 1, 1915
Plymouth.....	5,021	A. S. Gaylord.....	1	July 14, 1899	Oct. 14, 1914
Putnam.....	7,280	Wendell A. Mowry.....	1	June 7, 1914	June 30, 1915
Seymour.....	4,786	Charles R. Sumpf.....		Aug. —, 1912	
Southington.....	6,516	Ernest C. Witham.....	1	June —, 1912	July —, 1915
Stafford.....	5,233				
Stamford.....	28,836	Samuel J. Slawson.....	(1)	Sept. 8, 1913	
Stonington.....	9,154	C. A. Woodworth.....			
Stratford.....	5,712	William B. Kelsey.....	(1)	—, 1910	
Thompson.....	4,804	F. W. Barber.....			
Torrington.....	16,840	Edwin H. Forbes.....	1	—, 1886	June —, 1915
Vernon.....	9,087	(2).....			
Wallingford.....	11,155	Alfred B. Morrill.....	1	May —, 1910	Aug. —, 1915
Waterbury.....	73,141	B. W. Tinker.....	2	—, 1897	June —, 1915
West Hartford.....	4,908	Wm. H. Hall.....	1	Nov. 1, 1897	June 30, 1915
Westport.....	4,259	G. C. Bowman.....	1	July 15, 1914	July 15, 1915
Windham.....	11,230	(2).....			
Winchester.....	8,679	Frank E. Flak.....	1	May —, 1911	July 14, 1915
Windsor.....	4,178	Daniel Howard.....	2	July 1, 1910	—, 1916
DELAWARE.					
Wilmington.....	87,411	Clifford J. Scott.....	1	Apr. —, 1914	June 1, 1915
DISTRICT OF COLUMBIA.					
Washington.....	331,069	Ernest L. Thurston.....	3	Jan. 1, 1914	June 30, 1917
FLORIDA.					
Gainesville.....	6,138	F. W. Buchholz.....	1	Sept. 21, 1914	—, 1915
Jacksonville.....	57,699	F. A. Hathaway ⁴	4	Dec. 13, 1911	Jan. 1, 1916
Key West.....	19,945				
Lake City.....	5,032				
Miami.....	5,471	R. E. Hall ⁴	4	Jan. 1, 1905	Jan. 1, 1917
Ocala.....	4,370	Wm. H. Cassells.....	1	June 6, 1914	June 6, 1915
Pensacola.....	22,982	A. S. Edwards.....			
St. Augustine.....	5,494				
St. Petersburg.....	4,127	George N. Sleight.....	1	July —, 1914	July —, 1915
Tallahassee.....	5,018	A. K. Starlings.....	1	May —, 1914	May 15, 1915
Tampa.....	37,782	George M. Moore.....	4	Jan. 1, 1913	Jan. 1, 1917
West Tampa.....	8,258				
GEORGIA.					
Albany.....	8,190	R. E. Brooks.....	1	June —, 1914	June 30, 1915
Americus.....	8,063	James E. Mathis.....	1	—, 1904	July 1, 1915
Athens.....	14,913	George G. Bond.....	3	July 1, 1891	July 1, 1917
Atlanta.....	154,839	William M. Slaton.....	1	June 8, 1907	June 5, 1915
Augusta.....	41,040	Lawton B. Evans.....	1	Nov. 11, 1882	July 1, 1915
Bainbridge.....	4,217	John F. Thomason.....	1	June 1, 1911	June 1, 1915
Brunswick.....	10,182	N. H. Ballard.....	4	—, 1900	Aug. 1, 1918
Cartersville.....	4,067	Henry L. Sewell.....	1	July —, 1905	June —, 1915
Columbus.....	20,554	Roland B. Daniel.....	1	Nov. —, 1909	June 30, 1915
Cordele.....	5,883	W. R. Lanier.....			
Dalton.....	5,324	Charles D. Meadows.....	1	June —, 1913	June —, 1915
Dublin.....	5,759	W. T. Garrett.....	1	May 19, 1914	June 1, 1915
Elberton.....	6,483	Charles E. Dryden.....	1	June —, 1912	July 1, 1915
Fitzgerald.....	5,795	Horace B. Ritchie.....	1	Nov. —, 1910	July —, 1915
Gainesville.....	5,925	James A. Mershon.....	1	Mar. —, 1910	May 24, 1915
Griffin.....	7,478	James A. Jones.....	1	July —, 1911	July 1, 1915
La Grange.....	5,587	Clifford L. Smith.....	1	June 1, 1903	June 30, 1914

¹ Indefinite tenure.
² No superintendent.

³ Supervising principal.
⁴ County superintendent.

V.—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER—CON.

City.	Population, census of 1910.	Superintendent.	Term of office in years.	Date of original appointment.	Expiration of present term.
GEORGIA—contd.					
Macon.....	40,665	Charles H. Bruce.....	1	July 11, 1912	June 30, 1915
Marietta.....	5,949	William T. Dumar.....	1	July —, 1904	July 1, 1915
Milledgeville.....	4,385	O. R. Harton.....	3	July 1, 1912	June 1, 1916
Newnan.....	5,548	E. A. Armstead.....	1	June —, 1911	July 1, 1915
Rome.....	12,099	James C. Harris.....	1	— —, 1892	June —, 1915
Savannah.....	65,064	Otis Ashmore.....	1	July 1, 1896	July 1, 1915
Summerville.....	4,361	J. W. Stipe.....			
Thomasville.....	6,727	J. A. Duncan.....			
Valdosta.....	7,656	W. O. Roberts.....	1	Nov. —, 1900	June —, 1915
Waycross.....	14,485	Augustus G. Miller.....	1	June 1, 1912	May 31, 1915
IDAHO.					
Boise.....	17,358	Charles S. Meek.....	3	Mar. 16, 1908	July 31, 1915
Coeur d'Alene.....	7,291	Chas. Johnson.....	3	June 1, 1909	June 1, 1916
Idaho Falls.....	4,827	B. R. Crandall.....	1	Apr. —, 1907	Sept. 1, 1915
Lewiston.....	6,043	Frank W. Simmonds.....	2	July 1, 1913	July 1, 1915
Nampa.....	4,205	V. Meldo Hillis.....	3	Apr. —, 1912	Aug. 31, 1914
Pocatello.....	9,110	Walter R. Liders.....	3	July 1, 1899	June 1, 1916
Twin Falls.....	5,258	H. G. Blue.....	1	July 1, 1914	July 1, 1915
ILLINOIS.					
Alton.....	17,528	Robert A. Haight.....	1	Jan. 1, 1881	June 3, 1915
Aurora:					
East side.....	29,807	(Conrad M. Bardwell.....	1	— —, 1896	June —, 1915
West side.....		(A. S. Kingsford.....			
Batavia.....	4,436	Hugh A. Bone.....	1	July 1, 1909	June 30, 1915
Beardstown.....	6,107	Horace G. Russell.....	1	June —, 1910	June 30, 1915
Belleville.....	21,122	George H. Busick.....	1	July 1, 1903	July 1, 1915
Belvidere.....	7,253	Lewis A. Reisner.....	1	May —, 1913	June —, 1915
Berwyn.....	5,841	Eugene A. Wilson.....	1	Sept. —, 1906	June —, 1915
Bloomington.....	25,768	John K. Stableton.....	1	May —, 1901	June 30, 1915
Blue Island.....	8,043	J. E. Lemon.....	1	July 1, 1894	June 1, 1915
Calro.....	14,548	Taylor C. Clendenen.....	1	Aug. —, 1886	June 30, 1915
Canton.....	10,453	G. W. Gaylor.....	1	June 1, 1910	June 1, 1915
Carbondale.....	5,411	E. E. McLaughlin.....	1	Sept. —, 1907	June 1, —
Centralia.....	9,680	Samuel H. Bohn.....	1	May 13, 1902	June 5, 1915
Champaign.....	12,421	William W. Earnest.....	1	Mar. 1, 1908	June 30, 1915
Charleston.....	5,884	De Witt Elwood.....	1	July 1, 1903	July 1, 1915
Chicago.....	2,185,283	Ella Flagg Young.....	1	July —, 1909	Dec. —, 1914
Chicago Heights.....	14,525	Francis M. Richardson.....	1	June 1, 1900	June 1, 1915
Cicero.....	14,557	W. W. Lewton.....	1	Sept. —, 1908	June 30, 1914
Clinton.....	5,165	Henry H. Edmunds.....	1	July 1, 1907	June 30, 1915
Collinsville.....	7,478	C. H. Dorris.....			
Danville.....	27,871	Gilbert P. Randle.....	1	July 1, 1913	June 30, 1915
Decatur.....	31,140	James O. Engleman.....	1	June 29, 1913	Aug. 1, 1915
De Kalb.....	8,102	Charles A. McMurray.....	1	June —, 1911	June —, 1915
Dixon:					
North side.....	7,216	(H. H. Hagen.....	1	May 15, 1914	June 30, 1915
South side.....		(William R. Snyder.....	1	July —, 1909	June 30, 1915
Duquoin.....	5,454	Charles W. Houk.....	1	Sept. —, 1901	June 5, 1915
East St. Louis.....	58,547	D. Walter Potts.....	1	Aug. 1, 1911	July 31, 1915
Edwardsville.....	5,014	Charles F. Ford.....	1	Apr. —, 1911	May 31, 1915
Elgin.....	25,976	Robert I. White.....	1	July 1, 1907	June 30, 1915
Evanston:					
District No. 75.....	24,978	(Homer H. Kingsley.....	1	— —, 1886	— —, 1915
District No. 76.....		(Fred W. Nichols.....	1	— —, 1885	July 1, 1915
Forest Park.....	6,594	A. P. Goddard.....			
Freeport.....	17,567	Sigel E. Raines.....	1	Feb. 1, 1904	July 1, 1915
Galena.....	4,835	G. W. Menzimer.....	1	Apr. —, 1913	June 6, 1915
Galesburg.....	22,089	William L. Steele.....	1	July —, 1885	June 30, 1915
Granite City.....	9,903	Louis P. Frohardt.....	1	Aug. —, 1894	June 30, 1915
Harrisburg.....	5,309	Thomas O. Elliott.....	1	July —, 1908	June 30, 1915
Harvey.....	7,227	Frank L. Miller.....	1	May —, 1882	June 30, 1915
Herrin.....	6,861	Roy Vall Jordan.....	1	May 1, 1914	June 1, 1915
Highland Park.....	4,209	Jesse L. Smith.....	1	June —, 1902	June —, 1915
Hoopeston.....	4,698	Samuel K. McDowell.....	1	Feb. —, 1909	July 1, 1915
Jacksonville.....	15,326	W. A. Gore.....			
Jerseyville.....	4,113	Joshua Pike.....	1	July —, 1870	May 22, 1915
Joliet.....	34,670	Richard O. Stoops.....		Nov. 1, 1912	June 30, 1915
Kankakee.....	13,986	Franklin N. Tracy.....	1	July —, 1881	July 1, 1915
Kewanee.....	9,307	W. R. Curtis.....	1	Sept. 1, 1913	June 4, 1914
La Grange.....	5,282	F. E. Sanford.....	1	Sept. 1, 1890	June 30, 1915
La Salle.....	11,537	James B. McManus.....	1	June —, 1900	Aug. 1, 1915
Lincoln.....	10,892	H. A. Perrin.....	1	May —, 1913	June 1, 1915
Itchfield.....	5,971	William Hawkes.....	1	June —, 1912	June 1, 1915
Macomb.....	5,774	T. M. Birney.....			
Madison.....	5,046	Louis Baer.....	1	May —, 1893	June 1, 1915

V.—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER—Con.

City.	Population, census of 1910.	Superintendent.	Term of office in years.	Date of original appointment.	Expiration of present term.
ILLINOIS—continued.					
Marion.....	7,093	J. S. Campbell.....			
Mattoon.....	11,456	John F. Wiley.....	1	July 1, 1913	July 1, 1915
Maywood.....	8,033	Eugene La Rowe.....	1	May —, 1913	July 1, 1915
Melrose Park.....	4,806	Frank M. Crosby ²	1	Sept. —, 1913	June 11, 1915
Metropolis.....	4,655	Marcus N. McCartney.....	1	Apr. 20, 1910	June 30, 1915
Moline.....	24,199	Charles H. Maxson.....	1	Jan. —, 1911	June 30, 1915
Monmouth.....	9,128	Charles E. Joiner.....	1	June —, 1909	June 30, 1915
Morris.....	4,563	Edwin D. Martin.....	1	May 1, 1910	June 1, 1915
Mount Carmel.....	6,934	Almor S. Anderson.....	1		June —, 1915
Mount Vernon.....	8,007	William Miner.....	1	May —, 1907	May 31, 1915
Murphysboro.....	7,485	Samuel J. Shomaker.....	1	Apr. —, 1910	June —, 1915
Normal.....	4,024	Chester F. Miller.....	1	May 1, 1914	June 3, 1915
Oak Park.....	19,444	Wm. H. Hatch.....	1	— —, 1892	June 18, 1914
Olney.....	5,011	Henry W. Hostettler.....	1	June —, 1910	June 7, 1915
Ottawa.....	9,535	Christopher J. Byrne.....	1	Aug. —, 1905	June 30, 1914
Pana.....	6,055	George B. Coffman.....	1	May —, 1908	June 1, 1915
Paris.....	7,664	J. W. Moore.....	1	July 1, 1914	July 1, 1915
Pekin.....	9,897	J. J. Crosby.....			
Peoria.....	66,950	Gerard T. Smith.....	1	July 1, 1906	June 30, 1915
Perru.....	7,984	James R. Hart.....	1	June —, 1907	June —, 1915
Pontiac.....	6,090	W. W. McCulloch.....	1	May 10, 1913	June 4, 1915
Princeton.....	4,131	H. E. Waits.....			
Quincy.....	36,587	Edwin G. Bauman.....	1	Apr. —, 1910	July 1, 1915
Rockford.....	45,401	R. G. Jones.....	1	July 1, 1913	July 1, —
Rock Island.....	24,335	E. C. Fisher.....	1	June 20, 1914	July 1, 1915
St. Charles.....	4,046	Mary F. McAuley.....	1	— —, 1911	June —, 1915
Springfield.....	51,678	Hugh S. Magill, jr.....	1	Sept. 1, 1913	July 1, 1915
Spring Valley.....	7,035	Ernest L. Bost.....	1	June 1, 1914	Sept. —, 1915
Staunton.....	5,048	William E. Eccles.....			
Sterling:					
District No. 10.....	7,467	Charles H. Marcy.....	1	— —, 1913	June 4, 1915
District No. 11.....					
Streator.....	14,253	J. G. Moore.....			
Taylorville:					
East Side.....	5,446	Edgar S. Jones.....	1	Nov. 1, 1910	June 1, 1915
West Side.....		Prentice H. Deffendall.....	1	May —, 1909	June —, 1915
Urbana.....	8,245	A. P. Johnson.....	1	Aug. 1, 1906	July 31, 1915
Virden.....	4,000	Clyde Slone.....	1	June —, 1913	May 31, 1915
Waukegan.....	16,069	Oliver S. Thompson.....	1	June —, 1911	July 1, 1915
West Hammond.....	4,948	Arthur G. Deaver.....	1	June —, 1907	Sept. —, 1915
Wilmette.....	4,943	James R. Harper.....	1	Oct. 7, 1908	June 18, 1915
Woodstock.....	4,331	Richard W. Bardwell.....	1	Sept. —, 1914	June —, 1915
Zion.....	4,789	C. E. Bayler.....	1	Sept. 5, 1914	June —, 1915
INDIANA.					
Alexandria.....	5,096	Arthur L. Trester.....	1	— —, 1909	June 1, 1915
Anderson.....	22,476	James B. Pearey.....	2	June —, 1905	July 31, 1916
Aurora.....	4,410	J. R. Houston.....	1	— —, 1896	June —, 1915
Bedford.....	8,716	Joseph B. Fagan.....	1	May —, 1906	Aug. 1, 1915
Bloomington.....	8,838	Henry L. Smith.....	3	Aug. 1, 1909	Aug. —, 1916
Brazil.....	9,340	C. C. Coleman.....	1	May —, 1907	June 15, 1915
Bluffton.....	4,987	Philemon A. Allen.....	2	Dec. 20, 1906	June 30, 1915
Clinton.....	6,229	James W. Wilkinson.....	3	Aug. 1, 1913	Aug. 1, 1917
Columbus.....	8,813	Thomas F. Fitzgibbon.....	5	Aug. 1, 1901	July 31, 1918
Connersville.....	7,738	Edwin L. Rickert.....	1	Aug. 1, 1912	Aug. 1, 1915
Crawfordsville.....	9,371	Linnaeus N. Hines.....	3	July 1, 1908	July 1, 1915
Decatur.....	4,471	Charles E. Spaulding.....	3	May 14, 1913	— —, 1917
East Chicago.....	19,098	Edwin N. Canine.....	4	Sept. 1, 1905	Sept. 1, 1918
Elkhart.....	19,282	Ellis H. Drake.....	3	Apr. 16, 1906	June 30, 1917
Elwood.....	11,028	Joseph L. Clauser.....			
Evansville.....	69,647	James H. Tomlin.....	1	Mar. 29, 1910	Aug. 1, 1915
Fort Wayne.....	63,933	Justin N. Study.....	3	Aug. 1, 1896	July 1, 1915
Frankfort.....	8,634	O. M. Pittenger.....	1	Nov. 1, 1909	June 30, 1915
Franklin.....	4,502	Paul Van Riper.....	3	Sept. —, 1910	June —, 1916
Garrett.....	4,149	Francis M. Merica.....	3	June —, 1905	June —, 1915
Gary.....	16,802	William A. Wirt.....	3	Oct. —, 1906	June 30, 1911
Goshen.....	8,514	Edgar N. Mendenhall.....	3	Aug. 1, 1911	Aug. 1, 1915
Greenfield.....	4,448	Frank Larrabee.....	3	— —, 1911	— —, 1917
Greensburg.....	5,420	Elmer C. Jerman.....			
Hammond.....	20,925	C. M. McDaniel.....			
Hartford City.....	6,187	William A. Myers.....	1	Mar. 14, 1908	July 31, 1915
Huntington.....	10,272	Jesse M. Scudder.....	2	Aug. 1, 1911	Aug. 1, 1915
Indianapolis.....	233,650	J. G. Collicott.....	4	Jan. —, 1912	Apr. —, 1917
Jeffersonville.....	10,412	C. M. Marble.....	3	Feb. 22, 1904	July 1, 1917
Kendallville.....	4,981	P. C. Emmons.....	3	Aug. 1, 1910	Aug. 1, 1917

¹ County superintendent.² Supervising principal.

V.—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER—Con.

City.	Population, census of 1910.	Superintendent.	Term of office in years.	Date of original appointment.	Expiration of present term.
INDIANA—continued.					
Kokomo.....	17,010	Clarence V. Haworth.....	2	Mar. —, 1913	June 1, 1915
La Fayette.....	20,081	Robert F. Hight.....	1	Aug. 1, 1904	Aug. 1, 1915
Laporte.....	10,525	Arthur Deamer.....	3	Aug. —, 1909	Aug. 1, 1916
Lebanon.....	5,474	Henry G. Brown.....	1	—, 1905	July 1, 1915
Linton.....	5,906	Joseph H. Haseman.....	1	Apr. —, 1905	June —, 1915
Logansport.....	19,050	Albert H. Douglas.....	2	Aug. 1, 1891	Aug. 1, 1915
Madison.....	6,934	Donald Du Shane.....	1	Aug. 1, 1911	Do.
Marion.....	19,359	Albert E. Highley.....	2	Aug. —, 1913	Aug. —, 1916
Martinsville.....	4,529	J. E. Robinson.....	1	Aug. 1, 1901	Aug. 1, 1915
Michigan City.....	19,027	Louis W. Keeler.....	2	Apr. —, 1904	Sept. 1, 1916
Mishawaka.....	11,886	John F. Nuner.....	1	Sept. 1, 1903	July 31, 1915
Mount Vernon.....	5,563	Edgar J. Llewelyn.....	2	July 1, 1911	June 30, 1916
Muncie.....	24,005	Benj. F. Moore.....	1	May —, 1908	Aug. 1, 1915
New Albany.....	20,629	Harry A. Buerk.....	2	Sept. —, 1908	June 1, 1916
Newcastle.....	9,446	Elmer W. Lawrence.....	3	—, 1910	June —, 1917
Noblesville.....	5,073	Emmet C. Stopher.....	2	Aug. 1, 1909	July 31, 1915
Peru.....	10,910	Hal L. Hall.....	3	July 1, 1912	June 30, 1917
Portland.....	5,130	Grant E. Derbyshire.....	1	Dec. —, 1906	July 31, 1915
Princeton.....	6,448	James W. Stott.....	1	June 30, 1911	June 30, 1915
Richmond.....	22,324	Joe T. Giles.....	1	Aug. 1, 1913	July 31, 1915
Rushville.....	4,925	Joseph H. Scholl.....	1	—, 1904	Aug. 1, 1915
Seymour.....	6,305	Thomas A. Mott.....	3	Aug. 1, 1913	Aug. 1, 1917
Shelbyville.....	9,500	Jacob W. Holton.....	3	Nov. 15, 1912	Aug. —, 1916
South Bend.....	53,684	Leslie J. Montgomery.....	3	Aug. 15, 1912	Aug. 15, 1916
Sullivan.....	4,115	Carl N. Vance.....	1	Aug. 13, 1913	Aug. 31, 1915
Terre Haute.....	58,157	Charles J. Waits.....	1	Dec. 12, 1910	Aug. 1, 1915
Tipton.....	4,075	Charles F. Patterson.....	3	—, 1906	—, 1917
Valparaiso.....	6,987	Eugene Skinkle.....	3	Sept. 1, 1912	Sept. 1, 1916
Vincennes.....	14,895	Robert I. Hamilton.....	1	Mar. —, 1904	June 30, 1915
Wabash.....	8,687	Orville C. Pratt.....	3	June 10, 1911	June 10, 1917
Warsaw.....	4,430	H. S. Kaufman.....	1	Sept. —, 1908	Sept. —, 1914
Washington.....	7,854	E. D. Merriman.....	1	Aug. 1, 1913	July 31, 1915
Whiting.....	6,587	W. W. Holliday.....	1	Dec. 15, 1911	June 30, 1915
Winchester.....	4,266	Oscar R. Baker.....	1	June —, 1895	Aug. 1, 1915
IOWA.					
Albia.....	4,969	George W. Willett.....	1	June 1, 1913	May —, 1915
Ames.....	4,223	Frank W. Hicks.....	1	Apr. —, 1910	June 30, 1915
Atlantic.....	4,560	William F. Cramer.....	1	Sept. 1, 1913	June 1, 1915
Boone.....	10,347	Ernest C. Meredith.....	1	Apr. —, 1910	June 30, 1915
Burlington.....	24,324	Whittier L. Hanson.....	1	July —, 1909	Aug. 1, 1915
Cedar Falls.....	5,012	Bruce Francis.....	1	—, 1909	June —, 1915
Cedar Rapids.....	32,811	J. J. McConnell.....	1	Aug. 1, 1901	July 31, 1915
Centerville.....	6,936	Herbert O. Field.....	1	July 1, 1913	June 30, 1915
Charles City.....	5,892	Frank T. Vasey.....	1	Aug. 1, 1913	Aug. 1, 1915
Cherokee.....	4,884	F. E. Tellier.....	1	Mar. —, 1914	June —, 1915
Clinton.....	25,577	O. P. Bostwick.....	1	July —, 1889	Aug. 1, 1915
Council Bluffs.....	29,292	John H. Beveridge.....	1	Aug. 1, 1908	Aug. 1, 1915
Creston.....	6,924	Adam Pickett.....	1	June 30, 1907	June 30, 1915
Davenport.....	43,028	Frank L. Smart.....	1	July 1, 1907	June 30, 1915
Des Moines.....	86,368	Z. C. Thornburg.....	1	July 1, 1913	July 1, 1915
Dubuque.....	38,494	James H. Harris.....	1	May —, 1910	July 1, 1910
Fairfield.....	4,970	Cap E. Miller.....	1	Sept. 1, 1913	—, 1915
Fort Dodge.....	15,543	Lewis H. Minkel.....	1	Apr. —, 1911	—, 1915
Fort Madison.....	8,900	F. A. Welch.....	1	June 15, 1914	June 30, 1915
Glenwood.....	4,052	Henry P. Nielsen.....	1	Nov. —, 1912	June —, 1915
Grinnell.....	5,036	Eugene Henely.....	1	July 1, 1905	July 1, 1915
Iowa City.....	10,091	L. F. Meade.....	1	—, 1904	—, 1915
Keokuk.....	14,008	William Aldrich.....	1	July 1, 1904	June 30, 1915
Le Mars.....	4,157	S. T. Neveln.....	1	May —, 1914	June —, 1915
Marion.....	4,400	Ora M. Carson.....	1	Sept. —, 1912	—, 1915
Marshalltown.....	13,374	Aaron Palmer.....	3	Jan. 1, 1907	July 1, 1916
Mason City.....	11,230	F. E. Palmer.....	1	May —, 1914	June 5, 1915
Muscatine.....	16,178	Ira H. McIntire.....	1	July 1, 1912	July 1, 1915
Newton.....	4,616	Harry P. Smith.....	1	July 1, 1912	July 1, 1915
Oelwein.....	6,028	Silas W. Johnson.....	1	Sept. —, 1914	June 1, 1915
Oskaloosa.....	9,466	Otis P. Flower.....	1	Mar. 17, 1913	July 1, 1915
Ottumwa.....	22,012	H. E. Blackmar.....	1	Dec. —, 1912	July 1, 1915
Perry.....	4,630	F. L. Mahannah.....	1	Sept. 1, 1912	June 1, 1915
Red Oak.....	4,830	J. R. Inman.....	1	June 1, 1914	June 1, 1915
Shenandoah.....	4,976	A. H. Speer.....	1	Apr. 12, 1913	July 1, 1915
Sioux City.....	47,828	Melvin G. Clark.....	1	July 1, 1911	July 1, 1915
Washington.....	4,380	C. D. Loose.....	1	July —, 1913	June —, 1914
Waterloo:					
East Side.....	26,603	Chas. W. Kline.....	1	Sept. 1, 1911	Sept. 1, 1914
West Side.....		Anson T. Hukill.....	1	—, 1899	June —, 1915
Webster City.....	5,208	D. M. Kelly.....			

V.—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER—Con.

City.	Population, census of 1910.	Superintendent.	Term of office in years.	Date of original appointment	Expiration of present term.
KANSAS.					
Abilene.....	4,118	Wm. A. Stacey.....	2	Jan. —, 1907	Aug. —, 1914
Arkansas.....	7,508	John F. Bender.....	1	Aug. 1, 1907	July 31, 1915
Atchison.....	16,429	Nathan T. Voatch.....	.....	.....	.....
Chanute.....	9,272	John F. Hughes.....	2	July 1, 1911	July 1, 1916
Cherryvale.....	4,304	Nathaniel A. Baker.....	2	July —, 1910	Aug. 1, 1914
Coffeyville.....	12,687	Arthur A. Hughart.....	(1)	Aug. 1, 1912	.....
Concordia.....	4,415	Oscar B. Seyster.....	1	Mar. —, 1914	Mar. 22, 1915
Emporia.....	9,058	L. A. Lowther.....	2	—, 1896	Aug. 1, 1915
Fort Scott.....	10,493	H. D. Ramsey.....	2	June 1, 1911	June 1, 1916
Galena.....	6,096	R. E. Long.....	1	June 1, 1913	Aug. 1, 1915
Great Bend.....	4,022	Andrew F. Senter.....	1	Aug. 1, 1910	Aug. 1, 1915
Hutchinson.....	16,304	Justus O. Hall.....	1	Aug. 5, 1909	Aug. 1, 1914
Independence.....	10,480	C. S. Risdon.....	2	June 1, 1902	July 31, 1915
Iola.....	9,032	Clydes C. Brown.....	1	May —, 1912	Aug. 1, 1915
Junction City.....	5,598	Charles A. Wagner.....	1	Apr. 6, 1914	July 31, 1915
Kansas City.....	231	Mathew E. Pearson.....	1	May —, 1902	Aug. 1, 1915
Lawrence.....	74	Franklin P. Smith.....	2	Nov. —, 1894	Sept. —, 1915
Leavenworth.....	61	Mark E. Moore.....	1	Aug. 12, 1911	Aug. 12, 1915
Manhattan.....	22	Jno. Lofly.....	.....	.....	.....
Newton.....	62	B. F. Martin.....	2	Aug. 1, 1912	July 31, 1916
Oswatimie.....	46	A. S. Hiatt.....	1	May —, 1914	—, 1915
Ottawa.....	50	Arch L. Bell.....	1	July 1, 1904	July 1, 1915
Parsons.....	63	Frank L. Pinet.....	2	June 15, 1910	Aug. —, 1915
Pittsburg.....	55	Edwin T. Armstrong.....	2	Aug. 1, 1913	June 1, 1916
Rosedale.....	10	Armon P. Vaughn.....	2	Aug. 1, 1913	Aug. 1, 1915
Salina.....	34	William S. Heusner.....	2	Aug. 1, 1913	Aug. 1, 1915
Topeka.....	43,681	Harry B. Wilson.....	2	July —, 1913	Aug. 1, 1915
Wellington.....	7,044	Charles M. Ware.....	2	Aug. 1, 1912	Aug. 1, 1915
Wichita.....	52,450	Lawrence W. Mayberry.....	2	Aug. 1, 1912	Aug. 1, 1915
Winfield.....	6,700	James W. Gowans.....	2	Mar. 3, 1913	Aug. 1, 1916
KENTUCKY.					
Ashland.....	8,088	James W. Bradner.....	3	June —, 1913	Sept. —, 1916
Bellevue.....	6,684	Joseph W. Ireland.....	1	Aug. 12, 1914	Aug. 1, 1915
Bowling Green.....	9,173	Thomas C. Cherry.....	1	July 10, 1905	June 30, 1915
Covington.....	53,270	Homer O. Bluss.....	2	Aug. 1, 1907	June 30, 1915
Danville.....	5,420	J. A. Carnegie.....	.....	.....	.....
Dayton.....	6,979	Lewis N. Taylor.....	2	Sept. 1, 1911	July 31, 1915
Frankfort.....	10,465	Hugh C. McKee.....	1	June —, 1904	June 30, 1915
Georgetown.....	4,533	Jesse C. Waller.....	1	June —, 1910	May 31, 1915
Henderson.....	11,452	James W. Welch.....	1	June —, 1909	June 30, 1915
Hopkinsville.....	9,419	J. W. Marton.....	1	May 9, 1913	June 30, 1915
Lexington.....	35,000	M. A. Cassidy.....	.....	—, 1886	—, 1916
Louisville.....	223,928	E. O. Holland.....	4	Jan. 1, 1911	Jan. —, 1916
Ludlow.....	4,163	W. D. Reynolds.....	2	Sept. —, 1910	June —, 1915
Madisonville.....	4,961	Roy H. Gatten.....	1	May —, 1914	June —, 1915
Mayfield.....	5,916	Milton M. Faughender.....	1	Feb. —, 1912	July 1, 1915
Mayville.....	6,141	Wm. J. Caplinger.....	3	July 6, 1913	June 30, 1917
Middlesboro.....	7,305	M. Oliver Windrey.....	2	June 30, 1902	May 1, 1915
Newport.....	30,309	Wm. P. King.....	2	July —, 1914	June 30, 1916
Owensboro.....	16,011	James H. Risley.....	1	July —, 1911	July 1, 1914
Paducah.....	22,760	J. H. Bentley.....	2	May —, 1914	June 30, 1916
Paris.....	5,859	Thomas A. Hendricks.....	2	May —, 1913	June —, 1916
Richmond.....	5,340	Ditzler W. Bridges.....	3	July —, 1911	July 1, 1917
Somerset.....	4,491	J. P. W. Brouse.....	4	—, 1904	—, 1916
Winchester.....	7,156	E. F. Darnaby.....	.....	.....	.....
LOUISIANA.					
Alexandria.....	11,213	D. B. Showalter.....	4	Sept. 15, 1906	June 30, 1917
Baton Rouge.....	11,807	Adam M. Hendon ¹	1	July 1, 1913	June 30, 1915
Crowley.....	5,099	W. L. Grace.....	.....	.....	.....
Donaldsonville.....	4,090	W. H. Miller ¹.....	.....	June 28, 1914	.....
Houma.....	5,024	H. L. Bourgeois.....	.....	.....	.....
La Fayette.....	6,392	R. L. Jordan ²	1	July —, 1912	Sept. 1, 1915
Lake Charles.....	11,449	James N. Yeager.....	1	Aug. 11, 1913	Aug. 14, 1915
Monroe.....	10,209	Ernest L. Neville.....	1	Mar. 25, 1910	May 30, 1915
Morgan City.....	5,477	Lewis A. Law ²	1	July 8, 1913	Sept. 7, 1915
New Iberia.....	7,499	C. M. Bahun.....	.....	.....	.....
New Orleans.....	339,075	Joseph M. Gwinn.....	4	Nov. —, 1910	July —, 1917
Opelousas.....	4,623	W. B. Prescott ²	1	—, 1901	June 18, 1915
Plaquemine.....	4,955	John O. Ault ².....	.....	Sept. 3, 1914	June 1, 1915
Shreveport.....	29,015	C. E. Byrd.....	4	Jan. —, 1909	Jan. —, 1917

¹ At will of board.² Supervising principal.

V.—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER—CON.

City.	Population, census of 1910.	Superintendent.	Term of office in years.	Date of original appointment.	Expiration of present term.
MAINE.					
Auburn.....	15,064	Henry H. Randall.....	1	— —, 1907	July 1, 1915
Augusta.....	13,211	H. H. Stuart.....	1	.....	Aug. 1, 1915
Bangor.....	24,803	Daniel L. Wormwood.....	1	Aug. 28, 1912	Aug. 28, 1915
Bath.....	9,396	Clarence N. Flood.....	1	June 5, 1913	Sept. 1, 1914
Belfast.....	4,618	Wm. B. Woodbury.....	1	July 1, 1912	July 1, 1915
Biddeford.....	17,079	Harold W. Files.....	3	Aug. 1, 1911	Aug. 1, 1916
Brewer.....	5,667	Fred W. Burrill.....	1	Sept. 15, 1915	July 1, 1915
Brunswick.....	6,621	John A. Cone.....	1	June 18, 1909	Aug. 1, 1915
Calais.....	6,116	James M. Pike.....	1	Apr. 15, 1909	Apr. 7, 1914
Eastport.....	4,961	William H. Sturtevant.....	1	Aug. 20, 1913	Aug. 20, 1915
Fairfield.....	4,435	Will O. Hersey.....	1	July —, 1908	Apr. —, 1915
Gardiner.....	5,311	Herbert J. Chase.....	1	Sept. 1, 1912	Apr. 31, 1914
Houlton.....	5,845	Linville W. Robbins.....	1	Aug. 27, 1913	July 1, 1915
Lewiston.....	26,247	D. J. Callahan.....	1	Oct. 4, 1909	Aug. 1, 1915
Old Town.....	6,317	William D. Fuller.....	1	July 16, 1914	Aug. 1, 1915
Portland.....	58,571	De Forest H. Perkins.....	1	Aug. 1, 1911	Dec —, 1914
Presque Isle.....	5,179	Willard O. Chase.....	1	Aug. 1, 1911	July 1, 1915
Rockland.....	8,174	Giles A. Stuart.....	1	Sept —, 1909	Apr. 1, 1915
Rumford.....	6,777	W. H. S. Ellingwood.....	1	May 1, 1910	May 1, 1915
Saco.....	6,583	Theodore T. Young.....	1	Sept. —, 1909	Sept. —, 1915
Sanford.....	9,049	Isaac A. Smith.....	1	Apr. 1, 1911	Apr. 1, 1915
Skowhegan.....	5,341	Loen W. Gerrish.....	1	Aug. 1, 1911	Aug. 1, 1915
South Portland.....	7,471	Simon M. Hamlin.....	1	Apr. —, 1913	Aug. 1, 1915
Waterville.....	11,458	Charles N. Perkins.....	1	Sept. 11, 1912	July 1, 1915
Westbrook.....	8,281	Prescott Keyes.....	1	July 18, 1908	July 1, 1915
MARYLAND.					
Annapolis.....	8,609	Samuel Garner.....	2	Sept. 1, 1908	Aug. 1, 1916
Baltimore.....	558,485	Francis A. Soper.....	(1)	Sept. —, 1911	.....
Cambridge.....	6,407	James B. Noble ²	1	— —, 1912	July 31, 1915
Cumberland.....	21,839	John E. Edwards.....	2	Aug. 1, 1912	July 31, 1916
Frederick.....	10,411	G. Lloyd Palmer.....	2	May —, 1914	Aug. 1, 1916
Frostburg.....	6,028	Olin R. Rice ².....	.....	.....	.....
Hagerstown.....	16,507	W. M. Huyett.....	2	Aug. 15, 1911	July 31, 1916
Havre de Grace.....	4,212	James H. Owens ²	(1)	Sept. 1, 1909	.....
Salisbury.....	6,680	William J. Holloway ²	2	Aug. 1, 1908	July 31, 1916
MASSACHUSETTS.					
Abington.....	5,455	John E. De Meyer.....	3	Aug. —, 1909	Aug. —, 1915
Adams.....	13,026	Francis A. Bagnall.....	1	July —, 1891	July —, 1915
Amesbury.....	9,894	Charles E. Fish.....	1	Aug. 1, 1906	Aug. 1, 1915
Amherst.....	5,112	Audubon L. Hardy.....	3	Sept. 1, 1898	Sept. 1, 1915
Andover.....	7,301	J. Francis Allison.....	1	May 1, 1915	Apr. 30, 1915
Arlington.....	11,187	John F. Scully.....	1	Oct. —, 1905	June 30, 1915
Athol.....	8,536	Winfield S. Ward.....	1	Apr. 1, 1897	Aug. 31, 1915
Attleboro.....	16,215	Lewis A. Fales.....	1	Aug. 15, 1905	Aug. 15, 1915
Barnstable.....	4,676	George H. Galger.....	.....	.....	.....
Belmont.....	5,542	George P. Armstrong.....	3	Apr. —, 1897	June 30, 1915
Beverly.....	18,650	Seth H. Chace.....	1	July —, 1913	Sept. —, 1915
Blackstone.....	5,648	Albert G. Eldridge.....	3	Aug. 4, 1913	June —, 1916
Boston.....	670,585	Franklin B. Dyer.....	6	Sept. 1, 1912	Sept. 1, 1918
Braintree.....	8,066	Ralph L. Wiggin.....	(1)	Oct. 1, 1909	.....
Bridgewater.....	7,688	John E. De Meyer.....	3	Sept. 1, 1909	July 31, 1915
Brockton.....	56,878	George L. Farley.....	1	Aug. —, 1910	Aug. 31, 1915
Brookline.....	27,792	George I. Aldrich.....	(1)	June —, 1900	.....
Cambridge.....	104,839	M. E. Fitzgerald.....	5	Sept. 1, 1912	Sept. 1, 1918
Canton.....	4,797	John C. Davis.....	1	Aug. 1, 1911	Apr. 1, 1915
Chelmsford.....	5,010	Benjamin E. Martin.....	1	Aug. 1, 1910	July 31, 1915
Che'sea.....	32,452	Frank E. Parlin.....	1	Sept. 1, 1913	Sept. 1, 1915
Chicopee.....	25,401	John C. Gray.....	1	Sept. —, 1901	July 1, 1915
Clinton.....	13,075	Frederick E. Clerk.....	1	July 1, 1913	June 30, 1915
Concord.....	6,421	Wells A. Hall.....	(1)	— —, 1906	.....
Danvers.....	9,407	Henry C. Sanborn.....	1	June —, 1907	July 1, 1915
Dartmouth.....	4,378	Albert S. Cole.....	1	— —, 1906	Sept. —, 1915
Dedham.....	9,284	Roderick W. Hine.....	1	Aug. —, 1893	July 1, 1915
Dudley.....	4,267	Ernest W. Robinson.....	3	Aug. 1, 1903	July 1, 1915
Easthampton.....	8,524	William D. Miller.....	3	Apr. —, 1896	June 30, 1916
Easton.....	5,139	C. R. Stacy.....	1	July 1, 1913	July 1, 1915
Everett.....	33,484	Fairfield Whitney.....	1	Aug. —, 1910	Sept. 1, 1915
Fairhaven.....	5,122	Charles F. Prior.....	.....	.....	.....
Fall River.....	119,295	Hector L. Belisle.....	1	Aug. 15, 1913	Aug. 15, 1915
Fitchburg.....	37,826	James Chalmers.....	3	Aug. 1, 1914	Aug. 1, 1917
Frammingham.....	12,948	Ernest W. Fellows.....	1	May —, 1913	May —, 1915
Franklin.....	5,641	L. L. Cummings.....	.....	.....	.....

¹ Indefinite tenure.² Supervising principal.³ County superintendent.

7.—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER—CON.

City.	Population, census of 1910.	Superintendent.	Term of office in years.	Date of original appointment.	Expiration of present term.
MASSACHUSETTS—CON.					
Gardner.....	14,699	Fordyce T. Reynolds.....	1	Sept. —, 1913	June —, 1915
Gloucester.....	24,398	Freeman Putney.....	1	Apr. —, 1888	June 30, 1915
Grafton.....	5,705	Thomas H. De Coudres.....	3	July 22, 1912	June 30, 1915
Great Barrington.....	5,926	J. Leslie Purdom.....	1	May 1, 1914	July 1, 1915
Greenfield.....	10,427	Winthrop P. Abbott.....	2	May —, 1912	July —, 1917
Haverhill.....	44,115	Clarence H. Dempsey.....	1	Nov. 1, 1913	July 1, 1915
Hingham.....	4,965	Nelson G. Howard.....	1	Aug. —, 1898	Mar. —, 1915
Holyoke.....	57,730	Francis McSherry.....	3	Apr. 2, 1912	July 31, 1915
Hudson.....	6,743	Cassius S. Lyman.....	3	July —, 1906	July 1, 1915
Ipswich.....	5,777	Frederick B. Knight.....	1	July —, —	July 1, 1915
Lawrence.....	85,892	Bernard M. Sheridan.....	5	May —, 1904	Dec. 31, 1919
Lee.....	4,106	Walter K. Putney.....			
Leominster.....	17,580	W. H. Perry.....			
Lexington.....	4,918	Arthur H. Carver.....	1	Feb. 1, 1913	June —, 1915
Lowell.....	106,294	Hugh J. Molley.....	(1)	Sept. 6, 1912	
Ludlow.....	4,948	Walter E. Gushee.....	3	July —, 1903	June 30, 1915
Lynn.....	89,336	Frank J. Peaslee.....	(1)	July 1, 1901	
Malden.....	44,404	Farnsworth G. Marshall.....	1	Dec. 1, 1913	Mar. 1, 1915
Mansfield.....	5,183	Edward P. Fitts.....	3	—, —, 1891	—, —, 1915
Marblehead.....	7,338	Burr J. Merriam.....	1	Aug. 1, 1912	June 30, 1915
Marlboro.....	14,579	Ernest P. Carr.....	1	Aug. 1, 1912	Aug. 1, 1915
Maynard.....	6,390	Francis S. Brick.....	1	June —, 1913	June 30, 1915
Medford.....	23,150	Fred H. Nickerson.....	1	Aug. —, 1909	Aug. —, 1915
Melrose.....	15,715	John Anthony.....	1	Aug. —, 1909	June —, 1915
Methuen.....	11,448	Edwin L. Haynes.....	1	July 1, 1912	June 30, 1915
Middleboro.....	8,214	Charles H. Bales.....	1	Oct. —, 1901	Aug. 1, 1915
Milford.....	13,055	Almorin O. Caswell.....	1	Aug. 1, 1911	Sept. 1, 1915
Millbury.....	4,740	Chauncy C. Ferguson.....	3	July 1, 1912	July 1, 1915
Milton.....	7,924	Frank M. Marsh.....	1	June —, 1912	Mar. —, 1915
Monson.....	4,758	Frederick A. Wheeler.....	3	Aug. —, 1902	June 30, 1915
Montague.....	6,866	F. S. Briek.....			
Natick.....	9,866	Edgar L. Willard.....			
Needham.....	5,026	Austin H. Keyes.....	1	July 1, 1911	July 1, 1915
New Bedford.....	96,652	Allen P. Keith.....	1	June —, 1908	June 30, 1915
Newburyport.....	14,949	J. D. Brooks.....			
Newton.....	39,806	Ulysses G. Wheeler.....	1	June 18, 1914	Aug. 31, 1915
North Adams.....	22,019	Isaac F. Hall.....	1	Sept. 1, 1895	Sept. 1, 1915
Northampton.....	19,431	Fayette K. Congdon.....	1	Aug. 1, 1905	Aug. 1, 1914
North Andover.....	5,529	Dana P. Dame.....	1	Sept. 18, 1911	Sept. 18, 1914
North Attleboro.....	9,562	Robert J. Fuller.....	1	July —, 1907	Sept. 1, 1915
Northbridge.....	8,807	Samuel A. Melcher.....	3	Apr. —, 1888	June 30, 1915
Norwood.....	8,014	Austin H. Fittz.....	(1)	Aug. 1, 1909	
Orange.....	5,282	Wesley E. Nims.....			
Palmer.....	8,610	Clifton H. Hobson.....	1	July 1, 1911	July 1, 1915
Peabody.....	15,721	Albert Robinson.....	1	Sept. —, 1903	Sept. 1, 1915
Pittsfield.....	32,121	Clair G. Persons.....	1	Sept. 1, 1910	Aug. 30, 1915
Plymouth.....	12,141	Charles A. Harris.....	1	Sept. 1, 1913	May 15, 1915
Provincetown.....	4,368	Frank K. Graves.....	3	July 1, 1912	July 1, 1915
Quincy.....	32,642	Albert L. Barbour.....	1	July 1, 1909	June 1, 1915
Randolph.....	4,301	Samuel F. Blodgett.....	3	July 19, 1913	Aug. 1, 1916
Reading.....	5,818	Adelbert L. Safford.....	1	Sept. 1, 1913	Sept. 1, 1915
Revere.....	18,219	George M. Bemis.....	1	Feb. —, 1914	Sept. 9, 1915
Rockland.....	6,928	T. McKay Haines.....	1	July 22, 1913	Aug. 31, 1915
Rockport.....	4,211	William F. Eldredge.....	(1)	July 1, 1905	July 1, 1914
Salem.....	43,697	William W. Andrew.....	3	June —, 1912	Sept. —, 1916
Saugus.....	8,047	William F. Sims.....	1	Aug. —, 1910	July 1, 1915
Somerville.....	77,236	Charles S. Clark.....	1	Sept. 1, 1908	Sept. 1, 1915
Southridge.....	12,592	Fred E. Corbin.....	1	—, —, 1902	July —, 1915
South Hadley.....	4,894	Frederick E. Whitmore.....	3	Apr. —, 1904	Apr. —, 1915
Spencer.....	6,740	Elwin I. Bartlett.....	1	Aug. 1, 1914	Aug. 1, 1915
Springfield.....	88,926	James H. Van Sickle.....	1	July —, 1911	Jan. —, 1915
Stoneham.....	7,090	Arthur B. Webber.....	3	May —, 1910	July —, 1915
Stoughton.....	6,316	Edward P. Fitts.....	3	—, —, 1891	—, —, 1915
Swampscott.....	6,204	Willard M. Whitman.....	1	July 8, 1914	July 1, 1915
Taunton.....	34,259	Henry W. Harrah.....	1	June —, 1905	June —, 1915
Uxbridge.....	4,671	Charles M. Pennell.....	3	Aug. 12, 1911	Sept. 1, 1914
Wakefield.....	11,404	Willard B. Atwell.....	(1)	Aug. —, 1911	
Walpole.....	4,892	Frederic W. Kingman.....	1	May 9, 1905	June 30, 1915
Waltham.....	27,834	William D. Parkinson.....	(1)	July —, 1898	
Ware.....	8,774	George W. Cox.....	1	Aug. —, 1902	Aug. 1, 1915
Wareham.....	4,102	Herman N. Knox.....	3	—, —, 1910	—, —, 1916
Warren.....	4,188	Albert J. Chidester.....	3	Nov. 15, 1912	Nov. 15, 1915
Watertown.....	12,875	Wilfred H. Price.....	(1)	Feb. 1, 1908	
Webster.....	11,509	Ernest W. Robinson.....	3	Aug. 1, 1903	July 1, 1915
Wellesley.....	5,413	S. Monroe Graves.....	(1)	July 7, 1914	

(1) Indefinite tenure.

V.—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER—CON.

MASSACH.

Westboro.....	5,446	Earl E. Wilson.....	1	June 1, 1913	June 30, 1915
Westfield.....	16,044	Charles E. Fisher.....	1	June 1, 1914	Sept. 1, 1915
West Springfield...	9,224	John R. Faussey.....	3	Sept. 1, 1912	Sept. 1, 1915
Weymouth.....	12,895	Parker T. Pearson.....	1	May 1, 1909	May 1, 1915
Whitman.....	7,292	Elwood T. Wyman.....	1	July 1, 1913	June 30, 1915
Winchendon.....	5,578	Edwin S. Cobb.....	3	Sept. 1, 1911	Sept. 1, 1917
Winchester.....	9,309	Schuyler F. Herron.....	1	Aug. 1, 1907	Aug. 1, 1915
Winthrop.....	10,132	Frank A. Douglas.....	1	—, 1897	Aug. 31, 1915
Woburn.....	15,308	George I. Clapp.....	3	June —, 1903	June 30, 1917
Worcester.....	145,986	Homer P. Lewis.....	3	Apr. —, 1903	June 1, 1915

MICHIGAN.

Adrian.....	10,763	C	1	June —, 1904	July —, 1915
Aibion.....	5,833	W	1	—, 1898	July 1, 1915
Alpena.....	12,706	L	1	May 8, 1912	Do.
Ann Arbor.....	14,817	H	1	Apr. —, 1898	June 30, 1915
Battle Creek.....	25,267	W	1	—, 1895	Do.
Bay City.....	45,106	F	2	Dec 1, 1914	June 30, 1916
Belding.....	4,119	M			
Benton Harbor.....	9,185	F	1	Jan —, 1914	—, 1915
Bessemer.....	4,583	C	1	Sept. —, 1911	June 30, 1915
Big Rapids.....	4,519	D	1	April —, 1913	June 26, 1915
Boysie City.....	5,218	L	2	—, 1909	June —, 1916
Cadillac.....	8,375	G	2	Sept. —, 1904	Sept. —, 1915
Calumet.....	32,843	E	3	July 1, 1910	June 30, 1916
Charlotte.....	4,886	C	1	Sept. —, 1906	June —, 1915
Cheboygan.....	6,859	W. L. Barr.....	1	May 12, 1911	June 19, 1915
Coldwater.....	5,945	T. E. Johnson.....	2	Apr. 30, 1914	Sept. 1, 1916
Detroit.....	465,706	Charles E. Chadsey.....	3	Aug —, 1912	July —, 1915
Dowagiac.....	5,088	P. F. McCormick.....			
Escanaba.....	13,194	Fred E. King.....	1	Aug —, 1910	Aug —, 1915
Flint.....	38,550	Alvin N. Cody.....	1	June —, 1904	June —, 1915
Gladstone.....	4,211	Edward J. Wiltman.....	1	—, 1906	June 25, 1914
Grand Haven.....	5,856	John C. Hoekje.....	1	Aug —, 1913	June —, 1914
Grand Rapids.....	112,571	William A. Greeson.....	1	June —, 1906	July 1, 1915
Greenville.....	4,045	C. F. Straight.....	1	Sept. —, 1901	June 20, 1915
Hancock.....	8,981	H. D. Lee.....	1	July 1, 1913	June 1, 1915
Hastings.....	4,383	F. E. Ellsworth.....	3	—, 1914	June 18, 1915
Highland Park.....	4,120	Thad J. Knapp.....	3	Aug. —, 1911	July —, 1916
Hillsdale.....	5,001	S. J. Oier.....	3	—, 1900	Sept. —, 1917
Holland.....	10,490	Egbert E. Fell.....	4	July 1, 1910	July 1, 1915
Houghton.....	5,113	John A. Doelle.....	1	—, 1903	—, 1915
Ironia.....	5,030	Lewis L. Forsythe.....	1	Mar 5, 1912	July 1, 1915
Iron Mountain.....	9,210	Lee E. Amidon.....	1	July 1, 1898	June 30, 1915
Ironwood.....	12,821	Edmund T. Duffield.....	1	July 1, 1914	Do.
Ishpeming.....	12,448	E. E. Scribner.....	1	Sept. 1, 1902	Aug 31, 1915
Jackson.....	31,433	Edward O. Marsh.....	2	July —, 1911	June —, 1916
Kalamazoo.....	39,437	Shattuck O. Hartwell.....	1	June —, 1901	June 30, 1915
Lansing.....	31,229	E. P. Cummings.....	2	—, 1907	June —, 1916
Ludington.....	9,132	Frank E. Miller.....	2	July 1, 1908	June —, 1915
Manistee.....	12,381	Samuel W. Baker.....	3	Sept. —, 1898	July 1, 1917
Marquette.....	4,722	T. W. Clemon.....	1	May —, 1914	June —, 1915
Marquette.....	11,503	A. R. Watson.....	1	May 20, 1914	June 30, 1915
Marshall.....	4,236	Lester A. McDiarmid.....	1	Sept. —, 1913	Sept. —, 1915
Menominee.....	10,507	J. L. Silversmith.....			
Monroe.....	6,893	Edward E. Gallup.....	1	May —, 1914	July 1, 1915
Mount Clemens.....	7,797	Arthur S. Hudson.....	1	June —, 1909	July —, 1915
Muskegon.....	24,062	Joseph M. Frost.....	1	Sept 1, 1903	July 1, 1915
Negaunee.....	8,460	Orr Schurtz.....	1	May —, 1901	Do.
Niles.....	5,156	Martin B. Travis.....	2	—, 1910	—, 1916
Norway.....	4,974	George G. Malcolm.....	1	July 1, 1909	July 1, 1915
Owosso.....	9,639	Marion W. Longman.....	1	May —, 1912	July —, 1915
Petokey.....	4,778	Ernest C. Hartwell.....	3	Sept 1, 1908	Sept. —, 1917
Pontiac.....	14,532	G. L. Jenner.....	1	July 1, 1910	July 1, 1914
Port Huron.....	18,863	W. F. Lewis.....	1	July 1, 1899	June 30, 1915
River Rouge.....	4,163	Alexander McDonald.....	1	June —, 1900	
Saginaw:					
East side.....	50,510	Eugene C. Warriner.....	1	July 1, 1899	June 30, 1915
West side.....		Phil Huber.....	1	May —, 1903	July 1, 1915
St. Joseph.....	5,936	Ernest P. Clarke.....	1	—, 1899	July 1, 1915
Sault Ste. Marie.....	12,615	Matthew J. Walsh.....	1	Sept 1, 1911	July 1, 1915
Three Rivers.....	5,072	J. A. Wiggers.....	2	July 19, 1911	Sept —, 1916
Traverse City.....	12,115	Leon L. Tyler.....	2	July 1, 1911	July 1, 1916
Wyandotte.....	8,297	Hiram C. Daley.....	3	Apr —, 1908	June —, 1917
Ypsilanti.....	6,230	William B. Arbaugh.....	3	Jan. 21, 1903	June 30, 1916

V.—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER—Con.

City.	Population, census of 1910.	Superintendent.	Term of office in years.	Date of original appointment.	Expiration of present term.
MINNESOTA.					
Albert Lea.....	6,192	C. C. Baker.....	3	Apr. 17, 1911	June 30, 1916
Austin.....	6,960	Herbert E. Wheeler.....	1	Aug. —, 1913	Aug. 1, 1915
Bemidji.....	5,099	William P. Dyer.....	3	— —, 1910	June —, 1916
Brainerd.....	8,526	W. C. Cobb.....	1	— —, 1909	Aug. 1, 1915
Chisholm.....	7,884	J. P. Vaughan.....	1	May —, 1907	July 31, 1914
Cloquet.....	7,031	Peter Olesen.....	1	Aug. 28, 1909	June 1, 1915
Crookston.....	7,559	G. H. Sanberg.....	1	Mar. 1, 1914	July 1, 1915
Duluth.....	78,466	R. E. Denfield.....	3	July —, 1885	July 31, 1917
Eveleth.....	7,036	Burton O. Greening.....	1	July 1, 1904	July 1, 1915
Faribault.....	9,001	John Munroe.....	1	June —, 1912	June —, 1917
Fergus Falls.....	6,887	George A. Franklin.....	1	July 22, 1913	July 31, 1915
Hibbing.....	8,832	Herbert Blair.....	1	July 1, 1909	July 1, 1915
Little Falls.....	6,078	F. W. Dobbryn.....			
Mankato.....	10,365	F. J. Sperry.....	1	Aug. 1, 1909	July 1, 1915
Minneapolis.....	301,408	Frank E. Spaulding.....	3	May 4, 1914	July 31, 1915
Moorhead.....	4,840	Herbert R. Edwards.....	1	Aug. —, 1909	June 15, 1914
New Ulm.....	5,648	Henry C. Hess.....	2	Mar. 3, 1914	Aug. 1, 1916
Owatonna.....	5,658	W. B. Thornburgh.....	1	Apr. —, 1912	June 5, 1915
Red Wing.....	9,048	O. W. Herr.....	1	Aug. 1, 1914	Aug. 1, 1915
Rochester.....	7,844	Herman A. Johnson.....	3	June —, 1912	June 1, 1916
St. Cloud.....	10,600	C. H. Barnes.....	3	Mar. 1, 1912	Aug. 1, 1917
St. Paul.....	214,744	Dietrich Lange.....	2	June —, 1914	June —, 1916
St. Peter.....	4,176	Bertram M. Cosgrove.....	1	July 16, 1912	June 1, 1915
South St. Paul.....	4,510	D. Edward Hickey.....	1	June 30, 1911	June 30, 1915
Stillwater.....	10,198	William H. Hollands.....	1	— —, 1908	Aug. 1, 1915
Two Harbors.....	4,990	Harris E. Flynn.....	3	— —, 1910	— —, 1917
Virginia.....	10,473	P. P. Colgrove.....	1	July 1, 1913	July 1, 1915
Willmar.....	4,135	G. A. Foster.....	2	July —, 1910	June —, 1916
Winona.....	18,583	Jos. V. Voorhees.....	1	Mar. 7, 1913	July 31, 1915
MISSISSIPPI.					
Biloxi.....	8,049	Robert P. Linfield.....	1	May —, 1911	May 28, 1915
Brookhaven.....	5,293	B. T. Schumpert.....			
Clarksdale.....	4,079	Harvey B. Heidelberg.....	3	May 5, 1905	Sept. 1, 1916
Columbus.....	8,989	W. V. Frierson, jr.....	3	Mar. —, 1912	June —, 1915
Corinth.....	5,020	J. A. Carmack.....			
Greenville.....	9,610	Eli E. Bass.....	(1)	— —, 1884	
Greenwood.....	5,836	Charles E. Saunders.....	1	May —, 1914	May —, 1915
Gulfport.....	6,386	Ira T. Gilmer.....	1	June 1, 1913	June 1, 1915
Hattiesburg.....	11,733	F. B. Woodley.....	1	June —, 1901	June —, 1915
Jackson.....	21,262	Edward L. Bailey.....	3	June 1, 1900	Sept. 1, 1916
Laurel.....	8,465	Richard H. Watkins.....	1	June —, 1907	July 1, 1915
McComb.....	6,237	W. C. Williams.....	1	June 1, 1914	May 30, 1915
Meridian.....	23,285	David C. Hull.....	1	Aug. 1, 1912	Aug. 1, 1915
Natchez.....	11,791	Jackson H. Owings.....	1	May —, 1907	July —, 1915
Vicksburg.....	20,814	John P. Carr.....	1	— —, 1906	Sept. —, 1915
Water Valley.....	4,275	Clinton S. Bigham.....	1	May 20, 1913	May 25, 1915
West Point.....	4,864	Charles F. Capps.....	1	June —, 1907	June —, 1915
Yazoo City.....	6,796	James A. Caldwell.....	3	Mar. 16, 1913	June 1, 1917
MISSOURI.					
Aurora.....	4,148	Harry Moore.....			
Boonville.....	4,252	C. E. Chrane.....	1	July 1, 1913	June 30, 1915
Brookfield.....	5,749	J. U. White.....	1	Aug. —, 1899	July —, 1915
Cape Girardeau.....	8,475	John N. Crocker.....	1	June 30, 1913	June 30, 1915
Cartersville.....	4,539	Charles Gastineau.....	1	Apr. —, 1914	June 30, 1915
Carthage.....	9,483	S. H. Wood.....	1	June —, 1914	July 31, 1915
Chillicothe.....	6,265	A. R. Coburn.....	1	June 30, 1908	June 30, 1915
Clinton.....	4,992	Arthur Lee.....	1	June 1, 1902	June 1, 1915
Columbia.....	9,662	J. E. McPherson.....	1	Aug. 1, 1912	Aug. 1, 1915
De Soto.....	4,721	William N. Sellman.....	1	May —, 1911	June 30, 1915
Flat River.....	5,112	Thos. J. Stewart.....	1	Apr. 26, 1914	June 30, 1915
Fulton.....	5,228	J. Tandy Bush.....	1	July —, 1912	May 20, 1915
Hannibal.....	18,341	Livingstone McCartney.....	1	July 1, 1909	June 30, 1915
Independence.....	9,859	William L. C. Palmer.....	1	May 28, 1901	Sept. 1, 1915
Jefferson City.....	11,850	Samuel A. Baker.....	1	May —, 1913	June 30, 1915
Joplin.....	32,073	James A. Koontz.....	1	July —, 1913	July —, 1915
Kansas City.....	248,381	Ira I. Cammack.....	1	May —, 1913	May —, 1915
Kirksville.....	6,347	Charles Banks.....	1	Sept. —, 1910	Sept. 1, 1915
Kirkwood.....	4,191	Nelson Kerr.....	1	July 1, 1914	July 1, 1915
Lexington.....	5,242	B. M. Little.....	1	Feb. 9, 1912	May 31, 1915
Louisiana.....	4,454	R. R. Rowley.....			
Maplewood.....	4,976	William Robertson.....	1	July 1, 1908	June 30, 1915
Marshall.....	4,869	Lathrop J. Hall.....	1	July —, 1912	Aug. 1, 1915
Maryville.....	4,762	W. M. Westbrook.....	1	May —, 1913	June 1, 1915
Mexico.....	5,939	Herbert Pryor.....	1	— —, 1912	— —, 1915
Moberly.....	10,923	E. M. Sipple.....	1	July 1, 1914	July 1, 1915
Monett.....	4,177	Monte J. Hale.....	1	May —, 1912	June 1, 1915

1 Indefinite tenure.

V.—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER—CON.

City.	Population, census of 1910.	Superintendent.	Term of office in years.	Date of original appointment.	Expiration of present term.
MISSOURI—continued.					
Nevada.....	7,176	Frederick H. Barbee.....	1	Apr. —, 1912	June 30, 1915
Poplar Bluff.....	6,916	W. D. Grove.....	1	May —, 1914	June 1, 1915
St. Charles.....	9,437	Joseph Herring.....	1	June —, 1898	June 17, 1915
St. Joseph.....	77,403	John A. Whiteford.....	2	May —, 1904	July 1, 1916
St. Louis.....	687,029	Ben Blewett.....	4	June —, 1908	June —, 1916
Sedalia.....	17,822	John P. Gass.....	1	July 8, 1908	July 8, 1915
Springfield.....	35,201	William W. Thomas.....	1	June —, 1913	June 30, 1915
Trenton.....	5,656	Allen C. Gwinn.....	1	May 15, 1914	June 30, 1915
Warrensburg.....	4,689	Edward Beatty.....	2	— —, 1909	June 30, 1915
Webb City.....	11,817	Charles A. Greene.....	1	Apr. 12, 1912	June 5, 1915
Webster Groves.....	7,080	Hugh M. Gilmore.....	1	May —, 1914	June —, 1915
Wellston.....	7,312	Ernest F. Bush.....	1	June —, 1904	June —, 1915
MONTANA.					
Anaconda.....	10,134	William K. Dwyer.....	3	Aug. 1, 1905	July 31, 1917
Billings.....	10,031	Ward H. Nye.....	3	Sept. —, 1908	Sept. —, 1916
Bozeman.....	5,107	Risdon J. Cunningham.....	3	Jan. —, 1904	June 10, 1917
Butte.....	39,165	George F. Downer.....	3	— —, 1902	— —, 1917
Great Falls.....	13,948	Sam. D. Largent.....	3	June —, 1892	Sept. 1, 1917
Helena.....	12,515	John Dietrich.....	3	Aug. 1, 1910	July 31, 1917
Kalispell.....	5,549	William D. Swetland.....	3	Aug. —, 1906	July —, 1915
Livingston.....	5,359	B. A. Winans.....	3	May —, 1911	May 31, 1917
Miles City.....	4,697	J. A. Burger.....	1	May —, 1909	Aug. 1, 1915
Missoula.....	12,869	J. Ulysses Williams.....	3	Aug. 1, 1906	Aug. 1, 1915
Red Lodge.....	4,860	Alfred C. Carlson.....	3	Sept. —, 1909	Feb. 1, 1917
NEBRASKA.					
Beatrice.....	9,356	E. J. Bodwell.....	3	Aug. —, 1908	Aug. —, 1915
Columbus.....	5,014	R. M. Campbell.....	3	— —, 1910	June —, 1918
Fairbury.....	5,294	A. L. Caviness.....	3	Sept. —, 1900	June 16, 1915
Fremont.....	8,718	Archibald H. Waterhouse.....	3	Apr. —, 1908	July 1, 1917
Grand Island.....	10,326	Robert J. Barr.....	3	Aug. —, 1882	July 1, 1915
Hastings.....	9,338	C. M. Barr.....	3	June —, 1911	— —, 1917
Kearney.....	6,202	Ray E. Cochran.....	1	— —, 1912	June —, 1915
Lincoln.....	43,973	Earl M. Clive.....	1	— —, 1912	June —, 1915
Nebraska City.....	5,488	Geo. E. Martin.....	1	June 1, 1908	June 1, 1915
Norfolk.....	6,025	Merton E. Crozier.....	2	July —, 1911	July —, 1916
North Platte.....	4,793	Wilson Tout.....	1	— —, 1908	Sept. 1, 1915
Omaha.....	124,096	Ellis U. Graff.....	3	June —, 1911	Aug. 1, 1917
Plattsmouth.....	4,287	Wiley G. Brooks.....	2½	Dec. 26, 1912	July 1, 1915
South Omaha.....	26,259	N. M. Graham.....	3	Feb. —, 1907	July 1, 1916
York.....	6,235	Walter W. Stoner.....	3	Jan. 10, 1903	June 30, 1914
NEVADA.					
Goldfield.....	4,838	Joseph E. Bentel.....	1	Feb. 15, 1914	Sept. 1, 1915
Reno.....	10,867	Benson D. Billingham.....	4	July 1, 1908	July 1, 1917
NEW HAMPSHIRE.					
Berlin.....	11,780	Harry L. Moore.....	1	Nov. —, 1913	June —, 1915
Claremont.....	7,529	Wm. H. Slayton.....	1	July 1, 1913	June 30, 1915
Concord:					
Union district.....	21,497	Louis J. Rundlett.....	1	July —, 1885	July 1, 1915
Penacook district.....		George W. Sumner.....	(1)	July —, 1908	— —, 1915
Derry.....	5,123	Charles W. Cutts.....	1	— —, 1912	Sept. —, 1915
Dover.....	13,247	Ernest W. Butterfield.....	1	July 1, 1911	Feb. 10, 1915
Exeter.....	4,897	(2)	1	— —, 1912	— —, 1915
Franklin.....	6,132	William L. Coggins.....	1	July —, 1913	July 15, 1915
Keene.....	10,068	George A. Keith.....	1	— —, 1905	June 30, 1915
Laconia.....	10,183	Jos. H. Blaisdell.....	1	— —, 1897	July —, 1915
Lebanon.....	5,718	Thomas A. Roberts.....	1	— —, 1904	Sept. 1, 1915
Littleton.....	4,069	David F. Carpenter.....	1	July 15, 1900	July 15, 1915
Manchester.....	70,063	Charles W. Bickford.....	2	July 1, 1900	June 30, 1916
Nashua.....	26,005	James H. Fassett.....	1	— —, 1893	July —, 1915
Portsmouth.....	11,269	James N. Pringle.....	1	Feb. —, 1912	July 1, 1915
Rochester.....	8,868	E. A. Pugsley.....	1	Aug. 1, 1910	Aug. 1, 1915
Somersworth.....	6,704	Louis D. Ricord.....	1	July 15, 1914	Aug. 1, 1915
NEW JERSEY.					
Ashury Park.....	10,150	Zenos E. Scott.....	—	— —, 1903	— —, 1915
Atlantic City.....	46,150	Charles B. Boyer.....	3	Oct. —, 1893	July 1, 1916
Bayonne.....	55,545	John W. Carr.....	3	Jan. —, 1909	Aug. 31, 1916
Bloomfield.....	15,070	George Morris.....	6	Dec. —, 1904	June —, 1919
Boonton.....	4,930	Milo P. Reagle ²	1	Sept. —, 1903	June —, 1915

¹ Indefinite tenure.² No superintendent.

V—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER—(Con.)

City.	Population, census of 1910.	Superintendent.	Term of office in years.	Date of original appointment.	Expiration of present term.
NEW JERSEY—contd.					
Bordentown.....	4,230	Harry V. Holloway.....	1	Apr. 4, 1910	June —, 1913
Bridgeton.....	14,209	Henry J. Neal.....	(1)	July 1, 1909	
Burlington.....	8,336				
Camden.....	94,538	James E. Bryan.....	3	—, 1899	Dec —, 1916
Collingswood.....	4,795	As L. Flake ²	1	Sept. —, 1907	June 18, 1914
Dover.....	7,464	W. J. Singer.....	1	July 1, 1914	June 30, 1915
East Orange.....	34,371	Ed T. Broome.....	2	Sept. 1, 1913	—, 1915
East Rutherford.....	4,275	Fr J. Ogice ²	—	Sept. —, 1896	June —, 1915
Elizabeth.....	73,409	Rk E. Clement.....	7	July 2, 1907	July 1, 1921
Englewood.....	9,924	Elh Sherman.....	5	July 1, 1904	June 30, 1919
Fort Lee.....	4,472	L an Syckle ²	1	Sept. 1, 1907	Sept. 30, 1915
Garfield.....	10,213	Wl H. Steegar.....	3	Sept. —, 1907	June 30, 1915
Gloucester.....	9,462	W. F. Burns.....	5	July 1, 1908	June 30, 1919
Guttenberg.....	5,647	Isa I. Miller ¹	3	—, 1907	July —, 1917
Hackensack.....	14,050	William E. Stark.....	1	May —, 1911	June 30, 1915
Haddonfield.....	4,142	C. Ernest Dechant ²	1	Sept. —, 1907	
Hammonton.....	5,084	Newton C. Holdridge ²	1	Sept. —, 1897	July —, 1915
Harrison.....	14,498	Isaiah G. Miller.....	3	—, 1907	July —, 1917
Hoboken.....	79,324	Abraham J. Dearest.....	(1)	Apr 19, 1897	
Irvington.....	11,877	Frank H. Morrell.....	1	—, 1875	Sept. —, 1915
Jersey City.....	267,779	Henry Snyder.....	(1)	Mar. —, 1893	
Kearny.....	18,659	Herman Dressel.....	3	July 31, 1907	July 1, 1917
Lambertville.....	4,657	Howard G. Dibble ²	1	July 27, 1912	June 30, 1915
Lodi.....	4,138	Edgar F. Bunce.....	3	Mar. —, 1910	July 1, 1917
Long Branch.....	13,298	Christopher Gregory.....	(1)	Feb. 1, 1889	
Madison.....	4,658	Jesse T. Goodfrey.....	1	May —, 1913	July 1, 1915
Millville.....	12,451	W. N. Drum.....	—		
Montclair.....	21,550	D. C. Bliss.....	1	July 1, 1912	July 1, 1915
Morristown.....	12,507	J. Burton Wiley.....	1	Sept. —, 1912	June —, 1915
Newark.....	347,460	Addison B. Poland.....	(1)	—, 1901	
New Brunswick.....	23,388	Geo. H. Eckels.....	3	July 1, 1910	July 1, 1917
Newton.....	4,467	Howard E. Shiner ²	1	do.....	June 30, 1913
North Bergen.....	15,662	Milton F. Husted.....	(1)	Dec. 1, 1907	
North Plainfield.....	6,117	D. Fred Aungst.....	1	Apr. 27, 1914	June 24, 1915
Nutley.....	6,009	John R. Beachler ²	3	May —, 1910	July 1, 1916
Orange.....	29,630	James N. Muir.....	3	Nov. 15, 1911	July 1, 1919
Passaic.....	54,773	Fred B. Shepherd.....	—		
Paterson.....	125,600	John R. Wilson.....	(1)	Sept. —, 1906	
Perth Amboy.....	32,121	Samuel E. Shull.....	(1)	Dec. —, 1895	
Phillipsburg.....	13,903	Lewis O. Beers.....	—		
Plainfield.....	20,550	Henry M. Maxson.....	(1)	—, 1892	
Pleasantville.....	4,390	Thos. W. Hartman ²	1	Sept. 1, 1912	May 30, 1915
Princeton.....	5,136	Mabel T. Vanderhilt ²	1	Feb. 1, 1906	July 1, 1915
Rahway.....	9,337	William J. Bickell.....	(1)	—, 1906	
Red Bank.....	7,398				
Ridgewood.....	5,416	Ira W. Travell.....	1	July 1, 1912	June 30, 1915
Roosevelt.....	5,786				
Rutherford.....	7,045	C. A. Fetterly ²	1	July 1, 1911	June 30, 1915
Salem.....	6,614	Walter B. Davis.....	1	July 1, 1913	July 1, 1915
Secaucus.....	1,740	M. J. Fitchel ²	1	May —, 1914	June —, 1915
Somerville.....	5,000	William A. Ackerman ²	(1)	May —, 1905	
South Amboy.....	7,007	Oscar O. Barr.....	1	Mar. 16, 1914	June 30, 1915
South Orange.....	6,014	H. W. Foster.....	(1)	—, 1900	
South River.....	4,772	Francis P. O'Brien ²	(1)	Oct. —, 1909	
Summit.....	7,500	Clinton S. Marsh.....	3	July 1, 1910	June 30, 1915
Town of Union.....	21,023	N. C. Billings.....	—		
Trenton.....	96,815	Ebenezer Mackey.....	(1)	—, 1902	
Vineland.....	5,282	Howard L. Reher.....	1	May —, 1913	July —, 1915
Weehawken.....	11,228	Nathan C. Billings.....	(1)	Oct. 1, 1910	
Westfield.....	6,420				
West Hoboken.....	35,403	Michael H. Kinsley.....	5	Dec. 6, 1911	Jan. 1, 1917
West New York.....	13,560	Hally W. Maxson ²	(1)	July —, 1910	
West Orange.....	10,980	Alton H. Sherman ²	(1)	June —, 1904	
Woodbury.....	4,642	Malcolm G. Thomas ²	1	—, —, 1910	July 1, 1915
NEW MEXICO.					
Albuquerque.....	11,020	John Milne.....	1	Sept. 1, 1911	Aug. 31, 1915
Raton.....	4,539	Thos. W. Conway.....	1	Jan. 1, 1908	May 1, 1915
Roswell.....	6,172	William O. Hall.....	3	July 1, 1913	July 1, 1917
Santa Fe.....	5,072	Jonathan H. Wagner.....	1	Aug. 1, 1911	Aug. 1, 1915
NEW YORK					
Albany.....	100,253	C. Edward Jones.....	(1)	Sept. —, 1912	
Albion.....	5,016	Willis G. Carmer.....	1	Aug. 1, 1899	Aug. 1, 1915
Amsterdam.....	31,267	Harrison T. Morrow.....	3	Aug. 1, 1900	Aug. 1, 1915
Auburn.....	34,668	Henry D. Hervey.....	(1)	—, —, 1910	

¹ Indefinite tenure.² Supervising principal.

—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER—(Con.)

City.	Population, census of 1910.	Superintendent.	Term of office in years.	Date of original appointment.	Expiration of present term.
W YORK—continued.					
Albany...	4,138	William A. Andrews ¹	1	Apr. —, 1909	June 30, 1915
Alexandria...	11,618	Edwin A. Ladd..	1	July 1, 1913	July 1, 1915
Albion ²	10,639	G. F. DuBois.....	1	Sept. —, 1913	July 31, 1915
Albionton..	48,443	Daniel J. Kelly....	1	Apr. 22, 1913	July 31, 1915
Albionton..	423,716	Henry P. Emerson....	4	Jan. 1, 1903	Dec. 31, 1915
Albionton..	7,217	Lucas N. Steele.....	1	Aug. 1, 1907	July 31, 1915
Albionton..	8,298	Edwin C. Hocmer....	1	Aug. 1, 1912	Aug. 1, 1915
Albionton..	24,708	Edward Hayward.....	5	July 1, 1900	July 1, 1917
Albionton..					
District No. 9....		Hannibal H. Chapman..	1	Aug. 1, 1909	Aug. 1, 1915
District No. 13....	13,730	Arta M. Blodgett.....	1	Sept. —, 1907	June —, 1915
Albionton..	11,604	Ferdinand E. Smith..	3	July —, 1906	Aug. —, 1915
Albionton..	17,221	Nicholas L. Engelhardt..	2	Jan. 1, 1913	Aug. 1, 1915
Albionton..	37,176	Asner J. Jacoby.....	(²)	May —, 1912	
Albionton..	5,385	William B. Blaisdell..	1	Sept. 1, 1906	B
Albionton..	4,836	Ward C. Moon.....	4	Jan. 16, 1912	J
Albionton..	10,480	James R. Fairgrieve....	2	Jan. 1, 1904	I
Albionton..	12,416	Alden J. Merrill.....		Aug. 28, 1913	S
Albionton..	15,243	Elbert W. Griffith.....	1	—, 1899	A
Albionton..	20,642	James A. Estee.....	1	July —, 1900	J
Albionton..	4,128	Charles W. Lewis ¹	1	Aug. 1, 1913	J
Albionton..	4,563	Wm. W. Bullock ¹	1	Sept. 1, 1912	A
Albionton..	5,669	L. O. Markham.....	1	—, 1898	J
Albionton..	4,844	Ira M. Gast.....	1	May —, 1912	J
Albionton..	7,530	Geo. M. Elmendorf.....	1	Feb. —, 1910	J
Albionton..	5,232	Clyde L. Harvey.....	1	June 1, 1905	A
Albionton..	13,617	Elmer S. Redman.....	1	June —, 1908	J
Albionton..	11,417	Charles S. Williams....	(²)	May —, 1904	
Albionton..	5,189	Oscar W. Knoll.....	(²)	Aug. 1, 1913	
Albionton..	6,588	H. M. Schartz.....	1	Apr. —, 1911	July 31, 1915
Albionton..	14,802	Frank D. Boynton.....	(²)	—, 1900	
Albionton..	31,297	Rovillus R. Rogers....	3	Mar. —, 1900	July 1, 1915
Albionton..	10,447	Earl L. Ackley.....	3	Aug. 1, 1910	July 31, 1916
Albionton..	28,908	Myron J. Michael.....	(²)	Aug. 1, 1910	
Albionton..	14,549	Albert E. Cook.....	3	Aug. —, 1905	June 30, 1915
Albionton..	4,364	P. J. Zellman ¹	1	May —, 1910	June —, 1915
Albionton..		Nell K. White.....	1	Aug. 1, 1911	Aug. 1, 1915
Albionton..	12,272	John A. De Camp.....	1	July —, 1910	Aug. 31, 1915
Albionton..	17,970	Emmet Belknap.....	1	July —, 1899	Aug. 31, 1915
Albionton..	4,480	Worthy H. Kinney ¹	1	Sept. —, 1908	June —, 1915
Albionton..	6,467	R. M. Northrup.....	1	Sept. —, 1911	July 31, 1915
Albionton..	5,699	Geo. J. McAndrew.....	1	—, 1902	Sept. 1, 1914
Albionton..	6,634	Ambrose J. Fry.....	1	Apr. 1, 1912	July 31, 1915
Albionton..	6,683	Paul R. Merriman.....	1	May —, 1912	July —, 1915
Albionton..	13,313	James F. Tuthill.....	1	June 26, 1901	Aug. 31, 1915
Albionton..	30,919	W. H. Holmes.....	(²)	Nov. 1, 1913	
Albionton..	6,227	William M. Fort.....	1	—, 1907	Aug. 1, 1915
Albionton..	27,805	James M. Crane.....	1	Feb. 1, 1901	Dec. 31, 1914
Albionton..	28,867	Albert Leonard.....	(²)	Sept. —, 1907	
Albionton..	4,768,883	William H. Maxwell.....	6	Mar. 14, 1898	Mar. 14, 1916
Albionton..	30,445	Herbert F. Taylor.....	1	Dec. 5, 1913	Jan. 1, 1915
Albionton..	8,421	Chas. A. Benedict.....	1	Sept. 1, 1910	July 1, 1915
Albionton..	11,955	Richard A. Searling....	(²)	Apr. —, 1904	
Albionton..	7,422	Stanford J. Gibson.....	1	June —, 1899	June —, 1915
Albionton..	6,619	H. J. Wightman.....	1	Apr. 1, 1914	July 1, 1915
Albionton..	15,933	Francis C. Byrn.....	3	Oct. 8, 1913	Aug. 3, 1917
Albionton..	14,743	Delmer E. Batcheller....	1	Dec. 1, 1913	July 1, 1915
Albionton..	8,317	Daniel Keating.....	2	Mar. 6, 1914	Aug. 1, 1916
Albionton..	9,491	George J. Dann.....	1	Apr. 1, 1910	July 31, 1915
Albionton..	11,480	William H. Ryan.....	4	—, 1902	June —, 1917
Albionton..	23,368	Charles W. Richards....	4	Aug. 1, 1910	July 31, 1916
Albionton..	4,633	Isaac S. Carroll.....	1	—, 1906	July 31, 1915
Albionton..					
District No. 7....		Walter H. Young.....			
District No. 8....	15,245	Alexander D. Dunbar....	(²)	—, 1898	
Albionton..	4,507	N. Winton Palmer.....	1	Jan. 1, 1906	July 31, 1915
Albionton..	4,368	W. H. McClelland ¹	1	Sept. 1, 1906	Aug. 1, 1915
Albionton..	11,138	Frank K. Watson.....	1	Oct. 29, 1905	June 30, 1915
Albionton..	12,809	William Whitney.....	3	Mar. 1, 1912	Jan. —, 1917
Albionton..	8,564	Norman C. Gile.....	1	Aug. 1, 1913	July 31, 1915
Albionton..	4,036	Harley A. Miner ¹	1	Sept. —, 1912	June —, 1915
Albionton..	27,936	B. R. Shear.....	(²)	—, 1910	
Albionton..	10,711	Arthur Z. Boothby.....	(²)	Jan. 26, 1911	
Albionton..	218,149	Herbert B. West.....	4	July 15, 1911	July 15, 1915
Albionton..	20,497	George R. Staley.....	1	Aug. —, 1912	Aug. 1, 1915

¹ Supervising principal.² Indefinite tenure.³ Consolidation of Mattawana and Fishkill with Beacon.

V.—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER—CON.

City.	Population, census of 1910.	Superintendent.	Term of office in years.	Date of original appointment.	Expiration of present term.
NEW YORK—continued.					
Salamanca.....	5,792	.....	.....	.....	.....
Saranac Lake.....	4,983	Howard V. Littell.....	1	Aug. 1, 1912	July 31, 1915
Saratoga Springs.....	12,693	C. L. Mosher.....	.....	.....	.....
Schenectady.....	72,826	A. R. Brubacher.....	(¹)	June —, 1908	.....
Seneca Falls.....	6,588	Frederick J. Medden.....	1	Oct. 1, 1908	July 31, 1915
Solvay.....	5,139	Philip W. L. Cox.....	1	Mar. 16, 1913	July 1, 1915
Syracuse.....	137,249	Percy M. Hughes.....	4	Mar. 1, 1910	Dec. 31, 1915
Tarrytown.....	5,600	Leslie V. Case.....	1	— —, 1905	Sept. —, 1915
Tonawanda.....	8,290	Frank K. Sutley.....	3	— —, 1904	Sept. —, 1917
Troy.....	76,813	Arvie Eldred.....	.....	.....	.....
Utica.....	74,419	Wilbur B. Sprague.....	(¹)	Aug. 1, 1909	.....
Walden.....	4,004	Ezra W. Benedict ²	1	— —, 1909	Aug. 1, 1915
Watertown.....	26,730	Frank S. Tisdale.....	1	Apr. 1, 1915	July 20, 1915
Watervliet.....	15,074	Hugh H. Lansing.....	(¹)	Sept. —, 1907	.....
Waverly.....	4,855	P. C. Meserve.....	1	Sept. —, 1907	June —, 1915
Wellsville.....	4,382	Howard G. Burdge.....	1	Feb. 1, 1907	Aug. 1, 1915
Whitehall.....	4,917	Willard W. Andrews.....	1	July 1, 1912	June 3, 1915
White Plains.....	15,949	John W. Lumbard.....	1	Aug. 1, 1912	July 31, 1915
Yonkers.....	79,803	Charles E. Gorton.....	(¹)	Oct. 9, 1883	.....
NORTH CAROLINA.					
Asheville.....	18,762	Harry Howell.....	1	July 5, 1913	July 1, 1915
Burlington.....	4,808	Albert H. King.....	1	July 1, 1914	July 1, 1915
Charlotte.....	34,014	H. P. Harding.....	1	June 3, 1913	July 1, 1915
Concord.....	8,715	Albert S. Webb.....	1	July 1, 1910	June 30, 1915
Durham.....	18,241	Edwin D. Pusey.....	1	Apr. 13, 1914	June 1, 1915
Elizabeth City.....	8,412	Samuel H. Spragins.....	1	Mar. 9, 1914	June 30, 1915
Fayetteville.....	7,045	W. S. Snipes.....	.....	.....	.....
Gastonia.....	5,759	Joe S. Wray.....	1	Sept. —, 1901	May 1, 1915
Goldsboro.....	6,107	J. Walter Huffington.....	1	June 10, 1914	June 30, 1915
Greensboro.....	15,895	J. L. Mann.....	.....	.....	.....
Greenville.....	4,101	Hoy Taylor.....	1	July 1, 1913	June 30, 1915
Henderson.....	4,503	J. T. Alderman.....	1	Aug. 1, 1899	June 30, 1915
High Point.....	9,525	Thornwell Haynes.....	1	July 24, 1911	July 24, 1915
Kinston.....	6,995	B. P. Caldwell.....	.....	.....	.....
Lexington.....	4,163	Oscar V. Woosley.....	1	May 3, 1912	July 1, 1915
Monroe.....	4,082	William E. Moore.....	1	Apr. 11, 1914	June 1, 1915
Newbern.....	9,661	Harvey B. Craven.....	1	Sept. —, 1904	June 30, 1915
Raleigh.....	19,218	Frank M. Harper.....	1	June 1, 1907	May 23, 1915
Reidsville.....	4,828	Thomas W. Andrews.....	1	Sept. 1, 1911	June 30, 1915
Rocky Mount.....	8,051	R. M. Wilson.....	1	July 1, 1914	July 1, 1915
Salisbury.....	7,153	Arch T. Allen.....	1	July 4, 1910	.....
Statesville.....	4,599	D. Matt Thompson.....	1	July —, 1881	July 30, 1915
Tarboro.....	4,129	H. B. Smith.....	1	July 1, 1913	July 1, 1915
Washington.....	6,211	C. M. Campbell, jr.....	1	May 29, 1913	June 30, 1915
Wilmington.....	25,748	J. J. Blair.....	.....	.....	.....
Wilson.....	6,717	Charles L. Coon.....	1	July 1, 1907	July 1, 1915
Winston-Salem.....	17,167	Rowland H. Latham.....	1	June —, 1910	June 1, 1915
NORTH DAKOTA.					
Bismarck.....	5,443	Charles C. Root.....	1	July —, 1910	July 1, 1915
Devils Lake.....	5,157	Youell G. Barnell.....	1	Mar. 10, 1911	July 15, 1915
Fargo.....	14,331	William E. Hoover.....	1	Feb. —, 1906	July 1, 1915
Grand Forks.....	12,478	J. Nelson Kelly.....	1	July 1, 1894	June —, 1915
Jamestown.....	4,358	E. R. Edwards.....	1	Apr. —, 1912	June —, 1915
Minot.....	6,188	S. Henry Wolf.....	3	May —, 1900	June 30, 1915
Valley City.....	4,606	G. W. Hanna.....	1	June —, 1895	June 1, 1915
OHIO.					
Akron.....	69,067	H. V. Hotchkiss.....	5	— —, 1900	Aug. 31, 1915
Alliance.....	15,083	Benjamin F. Stanton.....	3	May —, 1913	— —, 1916
Ashland.....	6,795	John A. McDowell.....	3	Sept. —, 1908	Aug. 31, 1915
Ashtabula.....	18,266	H. C. Dieterich.....	3	Sept. 1, 1913	Sept. 1, 1916
Athens.....	5,463	Beverly O. Skinner.....	5	July 5, 1907	Sept. 1, 1917
Barberton.....	9,410	Uriah L. Light.....	2	June 24, 1913	July 15, 1915
Barnesville.....	4,233	August H. Denbrock.....	2	Sept. —, 1913	Sept. —, 1916
Bellaire.....	12,946	John A. Jackson.....	3	— —, 1910	— —, 1915
Bellefontaine.....	8,238	Richard J. Kiefer.....	1	June 16, 1914	June 16, 1915
Bellevue.....	5,209	Henry C. Bates.....	1	Sept. —, 1914	Sept. —, 1915
Bowling Green.....	5,222	Walter F. Shaw.....	4	— —, 1911	Aug. 31, 1918
Bucyrus.....	8,122	William N. Beetham.....	3	— —, 1907	— —, 1916
Cambridge.....	11,327	W. E. Arter.....	2	June —, 1913	June —, 1915
Canal Dover.....	6,621	Frank P. Geiger.....	3	July 1, 1902	Aug. 1, 1915
Canton.....	50,217	John K. Baxter.....	4	— —, 1905	— —, 1916
Chillicothe.....	14,508	F. J. Prout.....	1	May 3, 1914	Sept. 1, 1915

¹ Indefinite tenure.² Supervising principal. ✓

V.—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER—Con.

City.	Population, census of 1910.	Superintendent.	Term of office in years.	Date of original appointment.	Expiration of present term.
OHIO—continued.					
Cincinnati.....	363,591	Randall J. Condon.....	5	Jan. 1, 1912	Sept. 1, 1919
Circleville.....	6,744	E. H. Kuhn.....	1	May —, 1913	Aug. 31, 1915
Cleveland.....	560,663	J. M. H. Frederick.....	3	June 7, 1912	Aug. 31, 1915
Columbus.....	181,511	Jacob A. Shawan.....	2	May —, 1889	Aug. 31, 1916
Conneaut.....	8,319	Evan D. Williamson.....	3	July 1, 1912	Sept. —, 1916
Coshocton.....	9,603	Charles E. Bryant.....	2	— —, 1908	— —, 1914
Cuyahoga Falls.....	4,020	Wm. H. Richardson.....	3	June —, 1908	July 1, 1917
Dayton.....	116,577	Edwin J. Brown.....	5	Aug. —, 1909	Sept. —, 1916
Defiance.....	7,327	E. W. Howey.....	3	Aug. 31, 1912	Aug. 31, 1917
Delaware.....	9,076	William McK. Vance.....	5	Sept. —, 1906	Aug. 31, 1918
Delphos.....	5,038	Isaiah F. Matteson.....	5	June 1, 1912	June 1, 1919
Dennison.....	4,008	W. H. Angel.....	—	— —, 1891	— —, 1917
East Cleveland.....	9,179	Wm. H. Kirk.....	5	— —, 1908	— —, 1917
East Liverpool.....	20,387	Fred H. Warren.....	4	— —, 1901	— —, 1915
Elyria.....	14,825	William R. Comings.....	2	— —, 1901	— —, 1915
Findlay.....	14,858	John F. Smith.....	3	Mar. 23, 1909	May 31, 1917
Fostoria.....	9,597	Rolland W. Solomon.....	3	June 4, 1908	Aug. 31, 1915
Fremont.....	9,939	J. E. Collins.....	4	— —, 1906	— —, 1917
Galion.....	7,214	Isaac C. Guinther.....	3	— —, 1894	Sept. 1, 1915
Gallipolis.....	5,560	O. B. Clifton.....	—	— —, 1906	— —, 1915
Greenfield.....	4,228	E. W. Patterson.....	3	— —, 1914	Sept. —, 1915
Greenville.....	6,237	Fred C. Kirkendall.....	1	Sept. —, 1903	Aug. —, 1915
Hamilton.....	35,279	Darrell Joyce.....	4	July 1, 1914	July 1, 1915
Hillsboro.....	4,296	Nicholas J. Riter.....	1	Sept. 1, 1913	Aug. 31, 1915
Ironton.....	13,147	James E. Kinnison.....	5	— —, 1881	Sept. —, 1916
Jackson.....	5,468	William A. Walls.....	2	Sept. 1, 1910	Aug. 31, 1915
Kent.....	4,488	Norman E. Hutchinson.....	3	Jan. —, 1905	June —, 1916
Kenton.....	7,185	Charles P. Lynch.....	5	— —, 1910	Sept. —, 1919
Lakewood.....	15,181	Samuel H. Layton.....	2	Apr. —, 1911	July 1, 1915
Lancaster.....	13,093	John Davison.....	5	June —, 1905	July —, 1915
Lima.....	30,508	L. I. Morse.....	3	June 25, 1913	June 24, 1917
Logan.....	4,850	D. J. Boone.....	3	Sept. 1, 1914	Aug. 1, 1917
Lorain.....	28,883	Henry H. Helter.....	5	June —, 1907	Sept. —, 1918
Mansfield.....	20,768	J. V. McMillan.....	5	July —, 1902	Sept. —, 1916
Marietta.....	12,123	Henry A. Hartman.....	3	July 1, 1910	Aug. 31, 1917
Marion.....	18,232	Guy W. Finch.....	1	— —, 1911	Sept. —, 1915
Martins Ferry.....	9,133	L. E. York.....	4	— —, 1911	July —, 1917
Massillon.....	13,879	William T. Trump.....	3	June —, 1906	June —, 1916
Miamisburg.....	4,271	N. D. O. Wilson.....	2	July 1, 1912	July 1, 1915
Middletown.....	13,152	Frank Linton.....	3	July —, 1908	July —, 1915
Mingo Junction.....	4,049	P. C. Zemer.....	3	July —, 1913	— —, 1916
Mount Vernon.....	9,087	Frank P. Timmons.....	3	June 26, 1913	Aug. —, 1916
Nelsonville.....	6,082	Wilson Hawkins.....	3	July 1, 1910	July 1, 1915
Newark.....	25,404	Charles F. Limbach.....	2	Sept. —, 1912	Sept. —, 1916
New Philadelphia.....	8,542	W. C. Campbell.....	3	June 1, 1910	Aug. 31, 1915
Niles.....	8,361	A. D. Beechy.....	2	Sept. —, 1891	Aug. 31, 1915
Norwalk.....	7,858	W. S. Cadman.....	5	May —, 1896	Aug. 31, 1918
Norwood.....	16,185	Howard L. Rawdon.....	3	June 15, 1908	June —, 1917
Oberlin.....	4,365	Clarence C. Underwood.....	2	— —, 1913	— —, 1915
Painesville.....	5,501	George C. Dietrich.....	4	— —, 1909	— —, 1917
Piqua.....	13,388	Frank Appel.....	3	Feb. —, 1908	Aug. 31, 1916
Portsmouth.....	23,481	Edward O. Trescott.....	4	Apr. —, 1906	Aug. —, 1917
Ravenna.....	5,310	J. L. Trisler.....	3	Sept. —, 1909	Sept. —, 1916
St. Bernard.....	5,002	Charles C. McBroom.....	4	June —, 1907	June —, 1918
St. Marys.....	5,732	John S. Alan.....	3	Sept. 1, 1913	Sept. 1, 1916
Salem.....	8,943	James T. Begg.....	2	June —, 1913	Aug. 31, 1915
Sandusky.....	19,989	William H. Maurer.....	3	May —, 1912	Aug. —, 1916
Shelby.....	4,903	Herbert R. McVay.....	3	Aug. —, 1902	Aug. 1, 1917
Sidney.....	6,607	Carey Boggess.....	5	Apr. —, 1894	Aug. 31, 1917
Springfield.....	46,921	Robert L. Erwin.....	3	— —, 1907	— —, 1917
Steubenville.....	22,391	Charles A. Krout.....	5	— —, 1900	Aug. —, 1917
Tiffin.....	11,894	William B. Guiteau.....	5	Oct. —, 1909	Aug. 31, 1917
Toledo.....	168,497	Tilden J. Williams.....	3	July 1, 1909	July 1, 1915
Toronto.....	4,271	Charles W. Cookson.....	3	— —, 1906	— —, 1916
Troy.....	6,122	Luther E. Everett.....	3	— —, 1901	July 1, 1917
Uhrichsville.....	4,751	I. N. Keyser.....	4	— —, 1901	— —, 1917
Urbana.....	7,739	J. P. Sharkey.....	2	Aug. —, 1898	Aug. 31, 1916
Van Wert.....	7,157	Frank E. Reynolds.....	5	Feb. —, 1909	Aug. 31, 1919
Wapakoneta.....	5,349	Charles E. Carey.....	4	July 1, 1897	July 31, 1918
Warren.....	11,081	William McClain.....	3	June —, 1909	June —, 1916
Washington C. H.....	7,277	Samuel H. Maharry.....	2	Aug. —, 1912	Aug. 1, 1915
Wellston.....	6,875	A. D. Horton.....	3	May —, 1909	— —, 1917
Wellsville.....	7,769	Edwin P. West.....	3	Aug. —, 1904	Sept. 1, 1915
Wilmington.....	4,491	George C. Maurer.....	3	July 15, 1912	Sept. 1, 1915
Wooster.....	6,136	G. J. Graham.....	2	Jan. —, 1912	Aug. 31, 1916
Xenia.....	8,706	Novetus H. Chaney.....	4	July 7, 1902	Aug. 31, 1919
Youngstown.....	79,066	Willard C. Bowers.....	4	Dec. 6, 1909	Aug. 31, 1916
Zanesville.....	28,026				

V.—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER—CON.

City.	Population, census of 1910.	Superintendent.	Term of office in years.	Date of original appointment.	Expiration of present term.
OKLAHOMA.					
Ada.....	4,349	Francis W. Wenner.....	3	July —, 1911	Jan. 1, 1917
Altus.....	4,821	William H. Decker.....	1	Mar. 31, 1908	June 30, 1915
Ardmore.....	8,618	Charles W. Richards.....	1	June 1, 1911	June 1, 1915
Bartlesville.....	6,181	Francis W. Wenner.....	3	June —, 1911	June 1, 1917
Chickasha.....	10,320	William F. Ramey.....	2	May 28, 1908	June 30, 1915
Durant.....	5,330	Walter H. Echols.....	1	July —, 1908	July 31, 1915
El Reno.....	7,872	C. M. Lieb.....	3	Aug. 1, 1913	Aug. 1, 1917
Enid.....	13,799	Frank C. Jacoby.....	1	July 1, 1913	July 1, 1915
Guthrie.....	11,654	Fowler D. Brooks.....	2	May 24, 1911	June 30, 1915
Hugo.....	4,582	Henry G. Bennett.....	3	May 1, 1910	May 1, 1917
Lawton.....	7,788	William C. French.....	3	July 1, 1913	June 30, 1917
McAlester.....	12,954	Charles N. Peak.....	1	Jan. —, 1912	July 1, 1915
Muskogee.....	25,278	Edwin S. Monroe.....	1	June 30, 1909	June 30, 1915
Oklahoma.....	64,205	George V. Buchanan.....	3	Aug. 15, 1913	Aug. 15, 1916
Okmulgee.....	4,176	Nelson O. Hopkins.....	1	Apr. —, 1909	July 1, 1915
Sapulpa.....	8,283	Albert C. Cohagan.....	3	—, 1908	May 22, 1915
Shawnee.....	12,474	Hugh G. Foust.....	1	July 1, 1914	July 1, 1915
Tulsa.....	18,182	Edison E. Oberholtzer.....	3	June —, 1913	June —, 1916
Vinita.....	4,082	William G. Masterson.....	1	July 1, 1907	June 30, 1917
Wagoner.....	4,018	J. E. Sullivan.....	1	July —, 1914	July —, 1915
OREGON.					
Albany.....	4,275	Charles W. Boetticher.....	1	Mar. —, 1911	June 17, 1915
Ashland.....	5,020	George A. Briscoe.....	2	June —, 1911	June —, 1916
Astoria.....	9,599	John G. Imel.....	3	Aug. 1, 1909	Aug. 1, 1917
Baker City.....	6,742	Arthur C. Strange.....	1	July 1, 1913	July 1, 1915
Corvallis.....	4,552	Rollin W. Kirk.....	1	Aug. —, 1909	June —, 1915
Eugene.....	9,009	Clayton I. Collins.....	1	June —, 1913	June 1, 1915
La Grande.....	4,843	John Girdler.....	1	July 16, 1913	July 16, 1915
Medford.....	8,840	U. S. Collins.....	1	Sept. 1, 1909	June 1, 1915
Oregon City.....	4,287	Fred J. Tooze.....	1	June 20, 1909	June —, 1915
Pendleton.....	4,460	J. S. Landers.....	1	Dec. 1, 1906	July 1, 1915
Portland.....	207,214	Lewis R. Alderman.....	2	July 1, 1913	June 30, 1915
Roseburg.....	4,738	Frank B. Hamlin.....	1	Apr. —, 1914	June 1, 1915
St. Johns.....	4,872	Charles H. Boyd.....	3	Aug. —, 1908	Sept. —, 1916
Salem.....	14,094	Oliver M. Elliott.....	1	Apr. 29, 1914	July 1, 1915
The Dalles.....	4,880	Irvin B. Warner.....	2	—, —, —	July 1, 1916
PENNSYLVANIA.					
Allentown.....	51,913	Francis D. Raub.....	4	June —, 1893	May —, 1918
Attoona.....	52,127	Henry H. Balsh.....	4	Aug. 1, 1908	May 1, 1918
Ambridge.....	5,205	Burdette S. Bayle.....	4	June —, 1911	May —, 1918
Archbald.....	7,194	W. A. Kelly.....	4	—, —, 1904	May —, 1918
Ashland.....	6,855	T. E. Garber.....	4	Apr. 10, 1912	May —, 1918
Ashley.....	5,601	A. P. Cope ¹	3	—, —, 1910	—, —, 1916
Avalon.....	4,317	Oliver S. Jamison ¹	3	May 12, 1912	July 1, 1916
Avoca.....	4,634	Charles B. Webber ¹	1	May —, 1914	July —, 1915
Bangor.....	5,369	John W. Gruver.....	4	—, —, 1905	May 1, 1918
Beaver Falls.....	12,191	Clyde C. Green.....	4	July 1, 1911	July 1, 1918
Bellefonte.....	4,115	Jonas E. Wagner.....	3	—, —, 1910	—, —, 1915
Bellevue.....	6,323	W. Espey Albig ¹	1	—, —, 1909	June —, 1915
Berwick.....	5,357	J. Y. Shambach ¹	3	Apr. 25, 1913	Sept. 1, 1916
Bethlehem.....	12,837	Wm. G. Cleaver.....	4	May 6, 1914	Apr. 30, 1917
Blakely.....	5,345	Harry B. Anthony ¹	1	Sept. —, 1903	June —, 1915
Bloomsburg.....	7,413	Lloyd P. Sterner.....	4	July 14, 1914	May 1, 1918
Braddock.....	19,357	Francis C. Steltz.....	4	Oct. 7, 1912	May 1, 1918
Bradford.....	14,544	E. E. Schermerhorn.....	4	—, —, 1908	June —, 1918
Bristol.....	9,256	Louis D. Baggs.....	4	May 1, 1897	June 1, 1918
Butler.....	20,728	John A. Gibson.....	4	—, —, 1896	May 1, 1918
Carbondale.....	17,040	Patrick M. Brennan.....	4	May 5, 1914	May 1, 1918
Carlisle.....	10,303	John C. Wagner.....	4	—, —, 1903	May 1, 1918
Carnegie.....	10,009	Thomas J. George.....	4	May 1, 1911	May 1, 1918
Carrick.....	6,117	William H. Sprengle ¹	1	—, —, 1909	July —, 1915
Catasauqua.....	5,250	H. J. Reinhard ¹	3	—, —, 1902	—, —, 1916
Chambersburg.....	11,800	Aaron B. Hess.....	4	May 5, 1914	May 1, 1918
Charleroi.....	9,615	Thomas L. Pollock.....	4	May 5, 1914	May 1, 1918
Chester.....	38,538	J. L. Eisenberg.....	4	May 5, 1914	May 1, 1918
Clearfield.....	6,851	George E. Zerfass.....	4	June 1, 1911	June 1, 1918
Coaldale.....	5,154	John E. Gilder ¹	3	—, —, 1912	—, —, 1916
Coatesville.....	11,084	Wm. T. Gordon.....	4	May 5, 1902	May —, 1918
Columbia.....	11,454	Wm. C. Sampson.....	4	June —, 1914	May 1, 1914
Connellsville.....	12,845	Stanley P. Ashe.....	4	June 1, 1911	June 1, 1918
Conshohocken.....	7,480	Frank L. Cloud.....	4	Oct. 1, 1911	June —, 1918
Coraopolis.....	5,252	James E. Wherry ¹	—	June —, 1907	—, —, —
Corry.....	5,991	C. L. Wilson.....	4	July —, 1913	May —, 1918
Crafton.....	4,583	Calvin Bowman ¹	1	—, —, 1911	May 28, 1915

¹ Supervising principal.

V—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER—Con.

City.	Population, census of 1910.	Superintendent.	T o		
PENNSYLVANIA—contd.					
Danville.....	7,517	D. N. Dielffenbacher.	4	Sept. 1, 1907	May 1, 1918
Darby.....	6,305	Wilmer A. Krieder.	4	May 5, 1914	May 31, 1918
Dickson City.....	9,331	Archie W. Marvin.	4	May 5, 1914	May 1, 1918
Donora.....	8,174	Edgar Reed.	4	June 1, 1913	May 1, 1918
Dorrancton.....	4,048	Cole B. Hanyon.	3	—, 1907	—, 1918
Dubois.....	12,623	John S. Simons.	4	Mar. 12, 1914	June —, 1918
Dunmore.....	17,615	Charles F. Hoban.	4	—, 1902	May 1, 1918
Duquesne.....	15,727	Clyde H. Wolford.	3	Aug. 13, 1906	July 1, 1917
Duryea.....	7,487	Frederick J. Regan ¹ .	3	—, 1895	July —, 1918
East Conemaugh.....	—	J. M. Uhler ¹ .	2	June —, 1912	June —, 1918
Easton.....	3	Robert E. Laramy.	4	May —, 1913	May 1, 1918
East Pittsburg.....	5	George W. Campman ¹ .	3	June —, 1904	July 1, 1915
Edwardsville.....	7	James O. Herman ¹ .	3	—, 1893	—, 1915
Erie.....	5	Ira B. Bush.	4	June 1, 1914	May 31, 1918
Etna.....	0	James F. Mitchell.	1	June 1, 1914	June 1, 1915
Ford City.....	0	William W. Irwin.	3	July 1, 1907	July 1, 1915
Forest City.....	9	Floyd H. Taylor ¹ .	1	—, 1909	June 30, 1915
Franklin.....	7	N. P. Kinaley.	4	—, 1877	June —, 1918
Freeland.....	7	John H. Herring.	1	July 1, 1912	July 1, 1915
Galeton.....	7	Roger B. Foote ¹ .	1	Nov. 3, 1910	June 4, 1915
Gettysburg.....	0	Willis A. Burgoon ¹ .	1	—, 1909	July 1, 1915
Gilberton.....	1	—	—	—	—
Girardville.....	8	Edward W. Taylor ¹ .	4	July 23, 1913	—, 1918
Glassport.....	0	John S. Hart.	3	June 1, 1913	July 1, 1917
Greensburg.....	2	John H. Alleman.	4	Dec. 1, 1911	May 1, 1918
Greenville.....	9	G. B. Gerberich.	4	May —, 1908	June 1, 1918
Harover.....	7	Oden C. Gortner.	4	June 1, 1914	June 1, 1918
Harrisburg.....	8	Frederick E. Downes.	4	June —, 1905	May —, 1918
Hazleton.....	2	David A. Harman.	4	—, 1881	May 1, 1918
Homestead.....	3	Landis Tanger.	4	Jan. 9, 1913	May 1, 1918
Huntingdon.....	1	William M. Rife.	4	Nov. 1, 1912	June 1, 1918
Indiana.....	9	Frank E. Work ¹ .	3	—, 1908	June —, 1917
Jeannette.....	7	Theo. B. Shank.	4	—, 1904	May —, 1918
Jersey Shore.....	1	J. G. Dundore ¹ .	1	June 4, 1912	June 30, 1915
Johnsonburg.....	4	George W. Mitchell ¹ .	3	June —, 1908	June —, 1915
Johnstown.....	2	John N. Adee.	4	June 1, 1911	June 1, 1918
Juniata.....	5	Marshall B. Wineland.	4	Aug. —, 1909	May —, 1918
Kane.....	6	F. R. Neild.	4	May 8, 1911	May 16, 1918
Kingston.....	9	J. R. Merkel ¹ .	2	Sept. —, 1909	June 30, 1916
Kittanning.....	1	Frank W. Goodwin.	4	—, 1907	—, 1918
Knoxville.....	1	—	—	—	—
Lancaster.....	4,227	Hervey B. Work.	—	—	—
Lansdowne.....	4,066	Walter L. Phillips ¹ .	1	June —, 1906	June 28, 1915
Lansford.....	8,323	Elmer E. Kuntz.	4	—, 1905	May 1, 1918
Larksville.....	9,288	D. J. Gray.	3	—, 1899	—, 1917
Latrobe.....	8,777	Robert M. Steele.	4	June 1, 1914	Apr. 1, 1918
Lebanon.....	19,240	E. M. Balsbaugh.	—	—	—
Lehighton.....	5,310	Brinton M. Shull ¹ .	1	June —, 1908	Aug. 31, 1915
Lewistown.....	8,166	T. Latimer Brooks.	3	Aug. 5, 1910	May 5, 1918
Lock Haven.....	7,772	C. W. Hunt.	—	—	—
Luzerne.....	5,426	Theron G. Oshorn ¹ .	3	June —, 1913	—, 1916
McKeesport.....	42,694	Joseph B. Richey.	4	—, 1902	May —, 1918
McKees Rocks.....	14,702	Thomas K. Johnston.	4	May 3, 1911	June 1, 1918
Mahanoy City.....	15,936	H. W. Dodd.	4	May 5, 1914	June —, 1918
Meadville.....	12,780	Edward Sargent.	4	May 5, 1914	May —, 1918
Mechanicsburg.....	4,469	Ralph Jacoby ¹ .	1	June 1, 1912	June 1, 1915
Middletown.....	5,374	Harry J. Wickey.	4	June 1, 1899	May 1, 1918
Milvale.....	7,861	Curtis C. Williamson ¹ .	1	June —, 1910	June —, 1915
Milton.....	7,460	Wallace W. Fetzer.	4	Feb. 1, 1914	May —, 1918
Minersville.....	7,240	Wilber M. Yeingst.	4	June —, 1908	Apr. 1, 1918
Monessen.....	11,775	Harry E. Gress.	1	June —, 1910	May 6, 1918
Monongahela.....	7,598	Renwick G. Dean.	4	—, 1906	July 1, 1918
Mount Carmel.....	17,532	Samuel H. Dean.	4	June 1, 1893	June 1, 1918
Mount Oliver.....	4,241	Minnie Ubinger.	1	Sept. —, 1893	June —, 1915
Mount Pleasant.....	5,812	Urie Lee Gordy ¹ .	1	July 1, 1907	July 1, 1915
Munhall.....	5,185	Amos E. Kraybill ¹ .	1	July 5, 1911	Sept. 1, 1915
Nanticoke.....	18,877	Alton P. Diffendaler.	4	Jan. 1, 1909	May 1, 1918
New Brighton.....	8,329	Floyd Atwell.	4	June 1, 1911	May 1, 1918
New Castle.....	36,280	Geo. A. Dickson.	4	May 5, 1914	May 31, 1918
New Kensington.....	7,707	J. E. Hershberger.	4	Mar. 21, 1912	May 1, 1918
Norristown.....	27,875	A. S. Martin.	4	Nov. —, 1905	May 1, 1918
Northampton.....	8,729	William D. Landis.	4	June —, 1905	May —, 1918
North Braddock.....	11,824	Isabel White.	1	—, 1903	—
Oil City ¹	15,657	James J. Palmer.	—	—	—
Old Forge.....	11,324	Francis R. Coyne.	4	—, 1909	May 31, 1918
Olyphant.....	8,505	M. W. Cumming.	4	June 1, 1911	June 1, 1918

¹ Supervising principal.

V.—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER—Con.

City.	Population, census of 1910.	Superintendent.	Term of office in years.	Date of original appointment.	Expiration of present term.
PENNSYLVANIA—contd.					
Parsons.....	4,338	Ebenezer A. Evans ¹	3	Nov. 11, 1907	June 30, 1916
Philadelphia.....	1,549,008	Martin G. Brumbaugh ²	1	July —, 1906	Dec. 31, 1914
Phoenixville.....	10,743	Isaac Doughton.....	4	May —, 1913	June —, 1918
Pitcairn.....	4,975	Jacob H. Wintzel ¹	1	June 30, 1913	June 30, 1915
Pittsburgh.....	533,905	Wm. M. Davidson.....	4	Nov. —, 1913	—, 1917
Pittston.....	16,267	Francis S. McGuigan.....	4	Feb. —, 1913	June —, 1918
Plymouth.....	16,996	S. T. Smith.....	3	—, 1909	Sept. 1, 1917
Pottstown.....	15,599	William W. Rupert.....	4	July —, 1888	May —, 1918
Pottsville.....	20,236	Edward R. Barclay.....	4	Nov. 1, 1912	May 1, 1918
Punxsutawney.....	9,058	Frank S. Jackson.....	4	Dec. —, 1908	May —, 1918
Rankin.....	6,042	Rozell S. Penfield ¹	3	June —, 1911	July —, 1915
Reading.....	96,071	Charles S. Foos.....	4	May —, 1902	May —, 1918
Renovo.....	4,621	George A. Mincemoyer.....	2	June 15, 1908	June 1, 1916
Ridgway.....	5,408	Walter M. Pierce.....	3	Sept. —, 1897	July 1, 1917
Rochester.....	5,903	William S. Taft.....	4	July —, 1910	July —, 1918
St. Clairboro (Schuyl- kill County).....	6,455				
St. Marys.....	6,346	J. J. Lynch.....	3	June 1, 1902	June 30, 1917
Sayre.....	6,426	L. E. De Laney ¹	1	July 1, 1908	July 1, 1915
Schuylkill Haven.....	4,747	Eli P. Heckert ¹	1	June —, 1906	July 1, 1915
Scottdale.....	5,456	W. M. Edwards.....	1	Jan. —, 1913	June —, 1915
Scranton.....	129,867	Samuel E. Weber.....	4	May 5, 1914	May —, 1918
Sewickley.....	4,479	George E. Mark ¹	1	Feb. —, 1911	June 11, 1915
Shamokin.....	19,588	Joseph Howerth.....	4	Feb. 1, 1902	May 1, 1918
Sharon.....	15,270	William D. Gamble.....	4	Dec. 1, 1913	May 1, 1918
Sharpsburg.....	8,153	Floyd C. Flory ¹	1	June 8, 1914	May 28, 1915
Shenandoah.....	25,774	J. W. Cooper.....	4	Apr. 3, 1911	May —, 1918
Slatington.....	4,454	James W. Snyder ¹	3	Dec. —, 1906	June 1, 1917
South Bethlehem.....	19,973	Owen R. Wilt.....	4	—, 1887	May —, 1918
South Fork.....	4,592	W. C. Crawford ¹	3	May —, 1913	Sept. 1, 1916
Steelton.....	14,246	Lemuel E. McGinnes.....	4	—, 1888	July 1, 1918
Stroudsburg.....	4,379	Robert Brown, jr. ¹	1	July 1, 1914	—, 1915
Summit Hill.....	4,209	Harvey D. Levengood ¹	1	July —, 1913	June 1, 1915
Sunbury.....	13,770	Ira C. M. Ellenberger.....	4	June 1, 1908	Apr. 30, 1918
Swissvale.....	7,381	Chas. C. Kelso.....	4	May —, 1914	May 1, 1918
Swoyersvilleboro (P. O. Maltby).....	5,396	Joseph H. Finn ¹	3	Aug. —, 1913	Aug. 1, 1916
Tamaqua.....	9,462	J. F. Derr.....	4	May —, 1908	May —, 1918
Tarentum.....	7,414	Andrew D. Endsley.....	4	—, 1905	July —, 1918
Taylor.....	9,060	Wm. S. Robinson.....	4	May —, 1911	May 1, 1918
Throop.....	5,133	Jno. J. O'Hara.....	4	May —, 1911	May —, 1918
Titusville.....	8,533	Henry Pease.....	4	Apr. —, 1897	June —, 1918
Towanda.....	4,281	L. J. Russell.....	1	July 1, 1911	July 1, 1915
Turtle Creek.....	4,995				
Tyrone.....	7,176	John L. Gaunt.....	4	June 1, 1914	May 1, 1918
Uniontown.....	13,344	Frank W. Wright.....	4	May 8, 1914	May 1, 1918
Warren.....	11,080	Robert T. Adams.....	4	July —, 1909	May 1, 1918
Washington.....	18,778	Thomas G. McCleary.....	4	May —, 1911	May 1, 1915
Waynesboro.....	7,199	J. Hassler Reber.....	4	June —, 1899	May 1, 1918
West Berwick.....	5,512	Harlan R. Snyder ¹	3	—, 1901	—, 1916
West Chester.....	11,767	Addison L. Jones.....	4	June —, 1889	June 1, 1918
West Hazleton.....	4,715	Ernest A. Encke ¹	1	Oct. —, 1907	June —, 1915
West Pittston.....	6,818	Louis P. Bierly ¹	1	Aug. 1, 1898	June —, 1915
Wilkes-Barre.....	67,105	James M. Coughlin.....	4	Aug. 1, 1891	May 1, 1918
Wilkesburg.....	18,924	James L. Allison.....	4	Aug. —, 1902	May 1, 1918
Williamsport.....	31,860	F. W. Robbins.....			
Wilmerding.....	6,133	Charles W. Shaffer ¹	3	June —, 1908	June —, 1916
Windber.....	8,013	W. W. Lantz ¹	1	June 9, 1913	June 30, 1915
Winton.....	5,280	J. J. Judge.....			
York.....	44,750	Atrous Wanner.....	4	June 1, 1890	May —, 1918
RHODE ISLAND.					
Bristol.....	8,565	John P. Reynolds.....	1	Sept. 1, 1884	Sept. 1, 1915
Burrillville.....	7,878	Joseph C. Sweeney.....	1	Sept. 1, 1910	June 30, 1915
Central Falls.....	22,754	Emerson L. Adams.....	2	Feb. 1, 1912	Feb. 1, 1915
Coventry.....	5,848	Henry M. Walradt.....	1	Sept. 1, 1909	Aug. 31, 1915
Cranston.....	21,107	William C. Hobbs.....	1	Aug. 23, 1912	Jan. 1, 1915
Cumberland.....	10,107	Wm. H. Winslow.....	1	Aug. 1, 1910	Aug. 1, —
East Providence.....	15,808	James R. D. Oldham.....	1	Aug. 18, 1911	Jan. —, —
Johnston.....	5,935	Ira L. Nickerson.....	1	Apr. 1, 1912	Dec. —, 1914
Lincoln.....	9,825	Lucius A. Whipple.....	2	June —, 1914	July 1, 1916
Newport.....	27,149	Herbert W. Lull.....	1	July —, 1900	Dec. 31, 1914
North Kingston.....	4,048	Edmund K. Arnold.....	1	Nov. 7, 1914	Nov. 7, 1915
North Providence.....	5,407	Roscoe G. Frame.....	1	Nov. —, 1912	Nov. 30, 1914
Pawtucket.....	51,622	Frank O. Draper.....	1	Mar. 1, 1906	Dec. 31, 1914

¹ Supervising principal.² Elected Governor November, 1914.

V.—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER—Con.

City.	Population, census of 1910.	Superintendent.	Term of office in years.	Date of original appointment.	Expiration of present term.
RHODE ISLAND—contd.					
Providence.....	224,326	Isaac O. Winslow.....	(¹)	Apr. 25, 1913	
South Kingston.....	5,176	William A. Brady.....			
Warren.....	6,585	Leroy G. Staples.....	1	Aug. —, 1910	June —, 1915
Warwick.....	26,626	William F. Miner.....	1	Nov. 13, 1913	Nov. 13, 1914
Westerly.....	8,696	Wm. H. Bacon.....	1	June 30, 1913	June 30, 1915
Woonsocket.....	38,125	Frank E. McFee.....	1	Dec. —, 1886	Dec. 31, 1914
SOUTH CAROLINA.					
Abbeville.....	4,459	Robert B. Cheatham.....	1	July 1, 1911	July 1, 1915
Anderson.....	9,654	Elliott C. McCants.....	1	June 22, 1907	June 1, 1915
Charleston.....	58,833	Andrew B. Rhett.....	4	Jan. —, 1912	Jan. —, 1916
Chester.....	4,754	William H. McNairy.....	4	—, —, 1906	—, —, 1915
Columbia.....	26,319	Ernest S. Dreher.....	1	May 22, 1895	Aug. 31, 1915
Florence.....	7,057	W. L. Brooker.....	1	June —, 1910	July —, 1915
Gaffney.....	4,767	James H. Witherspoon.....	1	June 1, 1914	May 21, 1915
Georgetown.....	5,530	W. C. Bynum.....			
Greenville.....	15,740	E. L. Hughes.....			
Greenwood.....	6,614	W. W. Nickels.....			
Laurens.....	4,818	Burney L. Parkinson.....	1	Apr. 25, 1914	June 1, 1915
Newberry.....	5,028	Ernest Anderson.....	1	July 1, 1913	July 1, 1915
Orangeburg.....	5,906	Albert J. Thackston.....	1	July 1, 1897	June 30, 1915
Rock Hill.....	7,216	Richard C. Burts.....	1	July 22, 1914	Aug. 31, 1915
Spartanburg.....	17,517	Frank Evans.....	1	Sept. 8, 1895	June 5, 1915
Sumter.....	8,109	Samuel H. Edmunds.....	(¹)	—, —, 1895	—, —, 1915
Union.....	5,623	Davis Jeffries.....			
SOUTH DAKOTA.					
Aberdeen.....	10,753	Henry C. Johnson.....	3	Mar. 5, 1909	July 1, 1916
Huron.....	5,791	J. M. Martin.....	1	Mar. —, 1912	July 1, 1915
Lead.....	8,392	Theodore J. Saam.....	2	Aug. 1, 1911	Aug. 1, 1916
Mitchell.....	6,515	John W. McClinton.....	1	Jan. 1, 1911	Aug. 1, 1915
Sioux Falls.....	14,094	Archibald A. McDonald.....	1	July 1, 1907	June 30, 1915
Watertown.....	7,010	Lester B. Parsons.....	1	Sept. 1, 1907	Sept. 1, 1915
TENNESSEE.					
Bristol.....	7,184	Ralph B. Rubins.....	1	Apr. —, 1914	Sept. 1, 1915
Chattanooga.....	44,604	Charles H. Winder.....	1	July 1, 1914	June 30, 1915
Clarksville.....	8,548	Aaron J. Smith.....	1	July 1, 1914	July 1, 1915
Cleveland.....	5,549	Dewitt C. Arnold.....	1	June —, 1885	May —, 1915
Columbia.....	5,754	Robert L. Harris.....	1	Sept. 1, 1909	Sept. 1, 1915
Dyersburg.....	4,149	Clarence H. Walker ²	1	June 1, 1914	June 14, 1915
Jackson.....	15,779	Robert L. Bynum.....	2	June 14, 1912	July 31, 1916
Johnson City.....	8,502	J. L. Brooks.....			
Knoxville.....	36,346	Walter E. Miller.....	2	July 15, 1911	July 15, 1915
Memphis.....	131,105	Andrew A. Kincannon.....	4	Mar. 23, 1914	June —, 1918
Morristown.....	4,007	Dan T. Rogers.....	1	June 13, 1914	May —, 1915
Murfreesboro.....	4,679	J. D. Northcutt.....			
Nashville.....	110,364	J. J. Keyes.....	1	Aug. —, 1900	July 1, 1915
Park City.....	5,126	John R. Lowry.....	3	July 1, 1907	July 1, 1917
Union City.....	4,387	Arthur C. Nute.....	2	—, —, 1906	—, —, 1916
TEXAS.					
Abilene.....	9,204	John H. Burnett.....	2	July 1, 1909	July 1, 1916
Amarillo.....	9,957	Marcus H. Duncan.....	1	May 18, 1914	June 15, 1915
Austin.....	29,860	A. N. McCallum.....	1	—, —, 1903	—, —, 1915
Beaumont.....	20,640	Henry F. Triplett.....	2	July 15, 1903	July 15, 1916
Belton.....	4,164	Louis H. Hubbard.....	2	—, —, 1910	Aug. 5, 1916
Big Spring.....	4,102	M. H. Brasher.....			
Bonham.....	4,844	Herbert D. Fillers.....	1	Jan. 1, 1914	June 30, 1915
Brenham.....	4,718	William D. Notley.....	1	July 1, 1911	July 1, 1915
Brownsville.....	10,517	Lizzie M. Barbour.....	1	May —, 1913	Aug. 31, 1915
Brownwood.....	6,967	Thomas H. Hart.....	1	June —, 1912	June —, 1915
Bryan.....	4,132	William C. Lawson.....	1	May 13, 1907	Aug. 31, 1915
Cleburne.....	10,364	Emmett Brown.....	1	Aug. 1, 1913	Aug. 1, 1915
Corpus Christi.....	8,222	Joe C. Tucker.....	1	May 23, 1914	July 1, 1915
Corsicana.....	9,749	J. E. Blaire.....	1	June —, 1908	July 31, 1915
Dallas.....	92,104	Justin F. Kimball.....	1	July —, 1914	June 30, 1915
Denison.....	13,632	Frank B. Hughes.....	1	—, —, 1904	Sept. 1, 1915
Denton.....	4,732	John W. Beaty.....	1	June 1, 1912	June 1, 1915
El Paso.....	39,279	Richard J. Tighe.....	2	May 10, 1913	July 15, 1915
Ennis.....	5,669	J. D. Coghlan.....	2	Sept. 1, 1909	Aug. 31, 1916
Fort Worth.....	73,312	James W. Cantwell.....	2	June —, 1908	Apr. —, 1915
Gainesville.....	7,624	John P. Glasgow.....	1	Jan. 29, 1910	May 31, 1915

¹ Indefinite tenure.² Supervising principal.

V.—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER—Con.

City.	Population, census of 1910.	Superintendent.	Term of office in years.	Date of original appointment.	Expiration of present term.
TEXAS—continued.					
Galveston.....	36,981	John W. Hopkins.....	1	July —, 1896	July —, 1915
Greenville.....	8,850	Louis C. Geo.....	1	May —, 1907	June 30, 1915
Hillsboro.....	6,115	Thos. D. Brooks.....	1	Oct. —, 1906	July 31, 1915
Houston.....	78,800	Paul W. Horn.....	2	June 12, 1904	June 12, 1916
Houston Heights.....	6,984	Lawson W. Greathouse.....	1	July 1, 1911	July 1, 1915
Laredo.....	14,855	L. J. Christen.....	2	—, 1902	—
Longview.....	5,155	S. J. Blocher.....	1	May 1, 1907	May —, 1915
McKinney.....	4,714	John H. Hill.....	1	—, 1914	June 1, 1915
Marshall.....	11,451	Bruce B. Cobb.....	2	June 1, 1910	May 31, 1916
Orange.....	5,527	James E. Binkley.....	2	Aug. 1, 1901	July 31, 1916
Palestine.....	10,482	Luther B. Gill.....	2	May 25, 1913	Aug. 31, 1916
Paris.....	11,289	Judge G. Wooten.....	2	May —, 1893	Sept. 1, 1915
Port Arthur.....	7,663	George M. Sims.....	1	July 1, 1914	June 30, 1915
San Angelo.....	10,321	Felix E. Smith.....	2	June 1, 1905	June 1, 1915
San Antonio.....	96,614	Chas. J. Lukin.....	1	—, 1908	May 31, 1915
San Marcos.....	4,071	Walker King.....	1	Sept. 1, 1913	Aug. 1, 1914
Sherman.....	12,412	Jay C. Pyle.....	1	Apr. 3, 1907	May 31, 1915
Sulphur Springs.....	5,151	Foster V. Garrison.....	2	Sept. 1, 1908	Aug. 31, 1916
Sweetwater.....	4,176	Medicus B. Johnson.....	2	July —, 1906	June —, 1915
Taylor.....	5,314	John F. O'Shea.....	2	June 1, 1908	May 31, 1916
Temple.....	10,993	Wm. W. Clement.....	1	July 1, 1914	Aug. 1, 1915
Terrell.....	7,050	Starlin M. N. Marrs.....	1	June —, 1893	June 30, 1915
Texarkana.....	9,790	Oscar L. Dunaway.....	1	Aug. —, 1911	Aug. 1, 1915
Tyler.....	10,400	W. T. Adams.....	—	—	—
Waco.....	26,425	John C. Lattimore.....	2	June —, 1899	June 30, 1916
Waxahachie.....	6,205	G. B. Winn.....	1	—, 1910	Aug. 31, 1915
Weatherford.....	5,074	Thomas W. Stanley.....	2	Oct. —, 1904	May 31, 1916
Wichita Falls.....	8,200	George H. Carpenter.....	2	Aug. 1, 1912	July 31, 1916
Yoakum.....	4,657	C. A. Peterson.....	1	Sept. 1, 1905	Aug. 31, 1915
UTAH.					
Logan.....	7,522	A. Molyneux.....	1	Aug. —, 1907	June 30, 1916
Murray.....	4,057	Carl E. Gauhn.....	2	July 1, 1912	June 30, 1916
Ogden.....	25,580	John M. Mills.....	2	Apr. 1, 1909	July 1, 1916
Provo.....	8,925	Lars E. Eggertsen.....	2	June —, 1910	June 30, 1916
Salt Lake City.....	92,777	David H. Christensen.....	2	July 2, 1901	June 30, 1916
VERMONT.					
Barre.....	10,734	Edward M. Roscoe.....	1	July 1, 1912	June 30, 1915
Bellows Falls.....	4,883	Orvis K. Collins.....	1	July 1, 1910	June 30, 1915
Bennington.....	8,698	Albert W. Varney.....	1	June —, 1903	June 30, 1915
Brattleboro.....	7,541	Florence M. Wellman ¹	1	Sept. —, 1908	June —, 1915
Burlington.....	20,468	Merrill D. Chittenden.....	1	July 1, 1913	July 1, 1915
Montpelier.....	7,856	Sherburn C. Hutchinson.....	1	Apr. —, 1911	June 30, 1915
Rutland.....	13,546	David B. Locke.....	1	May 1, 1906	June 30, 1915
St. Albans.....	6,381	George S. Wright.....	1	Aug. —, 1909	July 1, 1915
St. Johnsbury.....	8,098	Walter H. Young.....	1	July 1, 1914	June 30, 1915
Springfield.....	4,784	Herbert D. Casey.....	1	May —, 1912	June 30, 1915
VIRGINIA.					
Alexandria.....	15,329	W. H. Sweeney.....	4	July 1, 1909	—, 1917
Bristol.....	6,247	F. B. Fitzpatrick.....	4	Apr. —, 1913	July —, 1917
Charlottesville.....	6,765	James G. Johnson.....	4	July 1, 1909	July 1, 1917
Clifton Forge.....	5,748	James G. Pressly ¹	1	June —, 1911	July 1, 1915
Covington.....	4,234	—	—	—	—
Danville.....	19,020	Ford H. Wheatley.....	4	Aug. 1, 1908	July 1, 1917
Fredericksburg.....	5,874	E. F. Birkhead.....	4	—, 1912	July —, 1917
Hampton.....	5,505	—	—	—	—
Harrisonburg.....	4,879	William H. Keister ¹	1	May —, 1894	June 1, 1915
Lynchburg.....	29,494	Edward C. Glass.....	4	Jan. 9, 1879	June 30, 1916
Newport News.....	20,205	E. W. Huffman ²	4	Feb. —, 1913	July 1, 1917
Norfolk.....	67,452	Richard A. Dobie.....	4	Jan. 1, 1896	July 1, 1917
Petersburg.....	24,127	Frank M. Martin.....	1	Aug. 1, 1914	June 7, 1915
Portsmouth.....	33,190	Harry A. Hunt.....	4	July 1, 1909	June 30, 1917
Pulaski.....	4,807	Mrs. L. S. Sayer ¹	1	May 10, 1914	May 30, 1915
Radford.....	4,202	J. P. Whitt.....	4	—, 1911	—, 1917
Richmond.....	127,628	Julian A. C. Chandler.....	4	July 1, 1909	June 30, 1917
Roanoke.....	34,874	Harris Hart.....	4	July —, 1909	July —, 1917
Staunton.....	10,604	John P. Neff.....	4	July 1, 1909	June 30, 1917
Suffolk.....	7,008	Joseph B. L. De Jarnette.....	4	Oct. 18, 1914	—, 1918
Winchester.....	5,864	M. M. Lynch.....	4	July —, 1913	July —, 1917

¹ Supervising principal.² Acting for Willis A. Jenkins.

V.—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER—Con.

Aberdeen.....	97	Geo. B. Miller.....	1	Mar. 15, 1914	Aug 31, 1915
Anacortes.....	68	Warner A. Jennings.	1	Apr —, 1914	July —, 1915
Bellingham.....	96	F.....	3	Apr. 12, 1909	July 1, 1915
Centralia.....	11	J.....	2	Apr. 3, 1913	July 1, 1915
Chehalis.....	07	F.....	1	May 11, 1914	June 30, 1915
Ellensburg.....	09	E.....	1	Aug —, 1911	June 12, 1914
Everett.....	14	C.....	3	—, 1910	—, 1915
Hoquiam.....	73	E.....	1	June —, 1911	June 1, 1914
North Yakima.....	52	A.....	3	Mar. 6, 1913	Aug. 1, 1917
Olympia.....	96	C.....	2	July 1, 1909	June 30, 1916
Port Townsend.....	81	A.....	1	Sept. 1, 1911	Aug 30, 1915
Puyallup.....	44	E.....	2	Aug 1, 1908	July 31, 1915
Seattle.....	94	F.....	3	—, 1901	July 1, 1915
Spokane.....	02	E.....	3	Mar. 20, 1908	July 1, 1916
Tacoma.....	43	V.....	3	Jan. 1, 1912	June 30, 1915
Vancouver.....	00	C.....	1	July 1, 1895	June 30, 1915
Walla Walla.....	54	V.....	1	July —, 1912	July —, 1916
Wenatchee.....	50	Geo. E. Brown.....	1	Apr. —, 1914	Aug. 1, 1915
WEST VIRGINIA.					
Benwood.....	76	H. L. Podlicord.....	1	July 1, 1911	June 30, 1915
Bluefield.....	88	H.....	1	—, 1883	—, 1915
Charleston.....	96	G.....	2	—, 1887	June 30, 1915
Clarksburg.....	71	F.....	1	Sept. —, 1908	June 30, 1915
Elkins.....	50	O.....	1	—, 1900	June 30, 1915
Fairmont.....	11	Jo.....	1	July —, 1900	June 30, 1915
Grafton.....	53	L.....	1	July 1, 1913	June 30, 1915
Huntington.....	81	W.....	1	July 1, 1905	June 30, 1915
Martinsburg.....	98	W.....	2	July 1, 1909	June 30, 1916
Morgantown.....	50	R.....	1	Sept. —, 1913	July 1, 1915
Moundsville.....	18	H.....	1	June —, 1913	June 30, 1915
Parkersburg.....	42	F.....	1	May 28, 1911	June 30, 1915
Wellsburg.....	4,189	E.....	1	July —, 1914	June 30, 1915
Wheeling.....	41,641	C.....	2	June 15, 1914	July 15, 1915
WISCONSIN.					
Antigo.....	7,196	R. A. Brandt.....	1	May 6, 1912	June 30, 1915
Appleton.....	10,773	Carrie E. Morgan.....	3	July 1, 1894	July 1, 1915
Ashland.....	11,594	V. T. Thayer.....	1	July 1, 1913	June 30, 1915
Baraboo.....	6,324	Alfred C. Kingsford.....	1	—, 1910	July 1, 1915
Beaver Dam.....	6,758	Lester R. Creutz.....	1	—, 1897	Aug 1, 1915
Beloit.....	15,125	Frank E. Converse.....	1	May —, 1913	June 30, 1915
Berlin.....	4,636	W. E. Bush.....	1	Oct —, 1911	June 30, 1915
Chippewa Falls.....	8,893	C. J. Brewer.....	1	—, 1912	June 12, 1915
De Pere:					
East side.....	4,477	John F. Hogan.....	1	May 10, 1912	June 30, 1915
Eau Claire.....	18,310	W. H. Schulz.....	1	July 1, 1906	June 30, 1915
Fond du Lac.....	18,797	J. E. Roberts.....	1	June 22, 1914	—, 1915
Grand Rapids.....	6,521	Charles W. Schwede.....	1	July —, 1909	June 30, 1915
Green Bay.....	25,236	A. W. Burton.....	3	—, 1900	—, 1915
Janesville.....	13,894	Harry C. Buell.....	1	Aug 1, 1901	Aug. 1, 1915
Kaukauna.....	4,717	Leo G. Schussmann.....	1	Aug 15, 1913	Aug. 15, 1915
Kenosha.....	21,371	Mary D. Bradford.....	1	May —, 1910	June —, 1915
La Crosse.....	30,417	L. P. Benezet.....	1	July 1, 1910	July 1, 1915
Madison.....	25,531	R. B. Dudgeon.....	1	July 1, 1891	July 1, 1915
Manitowoc.....	13,027	P. J. Zimmers.....	3	Apr. —, 1910	June 30, 1917
Marinette.....	14,610	George H. Landgraf.....	3	—, 1903	—, 1916
Marshfield.....	5,783	Carl W. Otto.....	1	Apr —, 1910	July 1, 1915
Menasha.....	6,081	John Callahan.....	1	June 30, 1901	June 30, 1915
Menomonie.....	5,036	C. G. White.....	1	June 19, 1914	—, 1915
Merrill.....	8,689	William Milne.....	1	July 1, 1910	June 30, 1915
Milwaukee.....	373,857	Milton C. Potter.....	3	Mar 1, 1914	Mar. 1, 1917
Monroe.....	4,410	J. W. T. Amos.....	1	May —, 1913	June —, 1915
Neshanic.....	5,734	Edward M. Beeman.....	3	July 1, 1903	July 1, 1915
Oconto.....	5,629	Ralph Q. Klotz.....	3	Nov. 1, 1913	June 6, 1915
Oshkosh.....	33,062	Matthew N. Melver.....	1	July 1, 1905	July 1, 1915
Platteville.....	4,452	Charles E. Slothower.....	1	Sept. —, 1909	Sept. 1, 1915
Portage.....	5,440	W. G. Clough.....	1	July —, 1875	July 1, 1915
Racine.....	38,002	Burton E. Nelson.....	3	—, 1904	Aug. —, 1917
Rhinelander.....	5,637	Wills P. Colburn.....	1	July 1, 1912	June 30, 1915
Sheboygan.....	26,398	Henry F. Leverenz.....	1	Apr. 15, 1890	Apr 15, 1915
South Milwaukee.....	6,002	Fred W. Hein.....	3	Aug. 1, 1909	Aug. 1, 1917

1 Acting superintendent.

V.—SUPERINTENDENTS IN CITIES AND TOWNS OF 4,000 POPULATION AND OVER—CON.

City.	Population, census of 1910.	Superintendent.	Term of office in years.	Date of original appointment.	Expiration of present term.
WISCONSIN—continued.					
Stevens Point.....	8,692	Herbert C. Snyder.....	1	June 29, 1914	Aug. 1, 1915
Stoughton.....	4,761	George O. Banting.....	3	June —, 1906	June 30, 1917
Sturgeon Bay.....	4,262	Rudolph Soukup.....	1	June —, 1911	June 12, 1914
Superior.....	40,384	William E. Maddock.....	3	July —, 1905	July —, 1915
Two Rivers.....	4,850	William J. Hamilton.....	1	July 1, 1907	July 1, 1915
Watertown.....	8,829	Thomas J. Berto.....	1	July —, 1911	July 1, 1915
Waukesha.....	8,740	G. F. Loomis.....	1	July 1, 1908	July 1, 1915
Wausau.....	16,560	Silas B. Tobey.....	3	July 1, 1905	June 30, 1917
West Allis.....	6,645	T. J. Jones.....	3	— —, 1907	— —, 1917
WYOMING.					
Cheyenne.....	11,320	Ira B. Fee.....	1	Aug. 1, 1912	Aug. 1, 1915
Laramie.....	8,237	William M. Sinclair.....	(1)	Aug. —, 1912	
Rawlins.....	4,256	Rolland M. Shreves.....	1	Sept. 1, 1914	Sept. 1, 1915
Rock Springs.....	5,778	Oscar J. Blakeley.....	1	— —, 1906	June —, 1914
Sheridan.....	8,408	John J. Early.....	1	Aug. 1, 1908	June 5, 1915

¹ Indefinite tenure.

VI.—COUNTY SUPERINTENDENTS.

County.	Superintendent.	County.	Superintendent.
ALABAMA.		ALABAMA—contd.	
Autauga.....	L. E. Byrum, Jones.	Marengo.....	B. F. Gilder, Linden.
Baldwin.....	J. S. Lambert, Bay Minette.	Marion.....	H. W. McKenzie, Hamilton.
Barbour.....	J. T. Searcy, Clayton.	Marshall.....	R. Lee Barnes, Guntersville.
Bibb.....	A. W. Hayes, Centerville.	Mobile.....	S. S. Murphy, Mobile.
Blount.....	L. J. Weston, Cleveland, R. F. D. No. 1.	Monroe.....	J. A. Barnes, Roy.
Bullock.....	George R. Hall, James.	Montgomery.....	G. W. Covington, Montgom- ery.
Butler.....	C. H. Lewis, Greenville.	Morgan.....	J. C. Tidwell, New Decatur.
Calhoun.....	H. T. Persons, Anniston.	Perry.....	Chas. C. Johnson, Marion.
Chambers.....	G. M. Barnett, Lafayette.	Pickens.....	J. W. Dowdle, Carrollton.
Cherokee.....	John H. Blair, Center.	Pike.....	J. M. Sanders, Troy.
Chilton.....	Willie T. Bean, Clanton.	Randolph.....	J. N. Word, Wedowee.
Choctaw.....	W. J. Dansby, Butler.	Russell.....	F. M. de Graffenried, Seale.
Clarke.....	T. L. Head, jr., Grove Hill.	Shelby.....	S. P. Williamson, Sterrett, R. F. D. No. 1.
Clay.....	W. T. Harwell, Ashland.	St. Clair.....	P. McClellon, Ashville.
Cleburne.....	G. B. Boman, Heflin.	Sumter.....	R. B. Callaway, Livingston.
Coffee.....	C. H. Byrd, Enterprise.	Talladega.....	M. T. Linder, Talladega.
Colbert.....	Joe Walker, Tuscumbia.	Tallapoosa.....	G. L. Bell, Dadeville.
Conecuh.....	R. E. L. Key, Evergreen.	Tuscaloosa.....	Perry B. Hughes, Tuscaloosa.
Coosa.....	Jef Sox, Rockford; R. F. D. No. 2.	Walker.....	A. S. Scott, Jasper.
Covington.....	H. J. Brogden, Andalusia.	Washington.....	W. S. Pearce, Koenton.
Crenshaw.....	T. A. Capps, Luverne.	Wilcox.....	Will M. Cook, Camden.
Cullman.....	D. V. Smith, Cullman.	Winston.....	J. M. Burns, Double Springs, R. F. D. No. 1.
Dale.....	R. L. Marchmann, Pinckard.		
Dallas.....	D. M. Callaway, Selma.	ARIZONA.	
Dekalb.....	J. Valdor Curtis, Fort Payne.	Apache.....	George Brown, St. Johns.
Elmore.....	G. H. Howard, Wetumpka.	Cochise.....	Minnie Lintz, Tombstone.
Escambia.....	W. S. Neal, Brewton.	Coconino.....	Lenore Frances, Flagstaff.
Etowah.....	S. C. McDaniel, Gadsden.	Gila.....	Mabry Crozier, Globe.
Fayette.....	Alexander Smith, Fayette.	Graham.....	S. C. Heywood, Thatcher.
Franklin.....	T. H. Roberson, Russellville.	Greenlee.....	J. W. Aker, Clifton.
Genova.....	J. W. Steely, Hartford.	Maricopa.....	J. A. Riggins, Phoenix.
Greene.....	W. P. Archibald, Knoxville.	Mohave.....	Mrs. L. J. Lassell, Kingman.
Hale.....	G. N. Williams, Greensboro.	Navajo.....	Joseph Peterson, Holbrook.
Henry.....	E. C. Glover, Abbeville.	Pima.....	W. M. Pryce, Tucson.
Houston.....	J. M. Odom, Dothan.	Pinal.....	Lola Le Baron, Florence.
Jackson.....	C. S. Brewton, Scottsboro.	Santa Cruz.....	Mrs. Josephine Saxon, Nogales.
Jefferson.....	P. M. McNeil, Birmingham.	Yavapai.....	W. Curtis Miller, Prescott.
Lamar.....	E. R. Harris, Vernon.	Yuma.....	C. Louise Boehringer, Yuma.
Lauderdale.....	D. O. Warren, Florence.		
Lawrence.....	W. S. Dill, Moulton.	ARKANSAS. ¹	
Lee.....	J. A. Albright, Opelika.	Arkansas.....	J. M. Henderson, jr., De Witt.
Limestone.....	M. K. Clements, Athens.	Ashley.....	F. W. Whiteside, Hamburg.
Lowndes.....	H. R. Williamson, Hayneville.	Baxter.....	G. W. Alcorn, Arkana.
Macon.....	W. B. Riley, Tuskegee.		
Madison.....	S. R. Butler, Huntsville.		

¹ Superintendents and county examiners.

VI.—COUNTY SUPERINTENDENTS—Continued.

County.	Superintendent.	County.	Superintendent.
ARKANSAS—contd.		ARKANSAS—contd.	
Benton.....	W. R. Edwards (supt.), Bentonville.	Saline.....	W. J. Canaday, Benton.
Boone.....	J. W. Nicholson, Bellefonte.	Scott.....	C. Henderson, Waldron.
Bradley.....	B. L. Herring, Warren.	Searcy.....	J. G. Ferguson, Western Grove.
Calhoun.....	L. A. Talbot, Harrell.	Sebastian.....	J. B. Williamson (supt.), Greenwood.
Carroll:		Sevier.....	H. I. Kolb, Lockesburg.
Western district..	C. S. Barnett, Eureka Springs.	Sharp:	
Eastern district..	R. C. Gibson, Berryville.	Northern district.	D. C. Billingsley, Ash Flat.
Chicot.....	U. C. Barnett, Dermott.	Southern district.	Wm. Jarvis, Cave City.
Clark.....	B. F. Condray, Arkadelphia.	St. Francis.....	J. M. Wilson, Caldwell.
Clay:		Stone.....	John H. Gray, Marcella.
Eastern district..	J. K. Browning, Piggott.	Union.....	A. D. Murphy, El Dorado.
Western district..	W. G. Barker, Corning.	Van Buren.....	Elmer Couch, Clinton.
Cleburne.....	T. M. Norwood, Quitman.	Washington.....	W. F. Buck, Fayetteville.
Cleveland.....	B. Y. Searcy, Rison.	White.....	J. F. Boggs (supt.), Searcy.
Columbia.....	W. A. Jackson, McNeil.	Woodruff:	
Conway.....	T. L. Haynes, Morrilton.	Southern district.	J. W. Simmons, Cotton Plant.
Craighead.....	A. J. Barrett, Jonesboro.	Northern district.	A. L. Hutchins, Augusta.
Crawford.....	T. F. Wasson (supt.), Van Buren.	Yell:	
Crittenden.....	T. P. Johnson, Earle.	Southern district.	M. Sullivant, Danville.
Cross.....	H. A. Woodward, Wynne.	Northern district.	T. A. Wright, Ola.
Dallas.....	H. O. Thweatt, Pine Grove.		
Desha.....	J. H. Wallace, McGehee.	CALIFORNIA.	
Drew.....	W. C. Cruce, Monticello.	Alameda.....	Geo. W. Frick, Oakland.
Faulkner.....	J. M. C. Vaughtner, Conway.	Alpine.....	Mrs. E. A. Grover, Markleeville.
Franklin:		Amador.....	W. H. Greenhalgh, Jackson.
Ozark district....	J. J. Partain, Altus.	Butte.....	Mrs. Minnie Abrams, Oroville.
Charleston district.	Oscar Corbell, Branch.	Calaveras.....	Frank Wells, San Andreas.
Fulton.....	R. L. White, Salem.	Colusa.....	Mrs. F. M. Rhodes, Colusa.
Garland.....	D. A. Crockett (supt.), Hot Springs.	Contra Costa.....	W. H. Hanlon, Martinez.
Grant.....	E. F. McDonald, Sheridan.	Del Norte.....	Jos. M. Hamilton, Crescent City.
Greene.....	Geo. H. Rogers, Paragould, R. F. D. No. 2.	El Dorado.....	S. B. Wilson, Placerville.
Hempstead.....	M. L. Hicks, Hope.	Fresno.....	E. W. Lindsay, Fresno.
Hot Spring.....	W. D. Leiper, Malvern.	Glenn.....	S. M. Chaney, Willows.
Howard.....	R. H. Kolb, Nashville.	Humboldt.....	Geo. Underwood, Eureka.
Independence.....	Sidney Pickens, Batesville.	Imperial.....	L. E. Cooley, El Centro.
Izard.....	T. H. Linn, Melbourne.	Inyo.....	Mrs. M. A. Clarke, Bishop.
Jackson.....	W. M. Shaver (supt.), Tuckerman.	Kern.....	R. L. Stockton, Bakersfield.
Jefferson.....	A. W. Lowe (supt.), Pine Bluff.	Kings.....	Mrs. N. E. Davidson, Hanford.
Johnson.....	B. M. Riddell, Clarksville.	Lake.....	Hettie Irwin, Lakeport.
Lafayette.....	J. F. Bright, Lewisville.	Lassen.....	W. B. Philliber, Susanville.
Lawrence.....	G. A. Hulen, Hoxie.	Los Angeles.....	Mark Keppel, Los Angeles.
Lee.....	T. A. Futrell (supt.), Marianna.	Madera.....	Craig Cunningham, Madera.
Lincoln.....	W. A. Fish, Star City.	Marin.....	Jas. B. Davidson, San Rafael.
Little River.....	L. E. Quinn, Ashdown.	Mariposa.....	J. L. Dexter, Mariposa.
Logan:		Mendocino.....	L. W. Babcock, Ukiah.
Northern district.	J. G. Gideon, Prairie View.	Merced.....	Margaret Sheehy, Merced.
Southern district.	W. C. Bryant, Booneville.	Modoc.....	Mrs. N. B. Harris, Alturas.
Lonoke.....	E. R. Robinson, Lonoke.	Mono.....	Mrs. C. E. Hays Dolan, Bridgeport.
Madison.....	W. A. Easterling, Huntsville.	Monterey.....	A. J. Hennessy, Salinas.
Marion.....	Fred Williams, Flippin.	Napa.....	Mrs. Margaret Melvin Ferguson, Napa.
Miller.....	John Winham (supt.), Texarkana.	Nevada.....	R. J. Fitzgerald, Nevada City.
Mississippi.....	J. D. Swift (supt.), Blytheville.	Orange.....	R. P. Mitchell, Santa Ana.
Monroe.....	David Bowen (supt.), Brinkley.	Placer.....	Preston W. Smith, Auburn.
Montgomery.....	W. G. Miller (supt.), Mount Ida.	Plumas.....	Mrs. M. A. Hall, Quincy.
Nevada.....	R. D. Martin, Emmet.	Riverside.....	Raymond Cree, Riverside.
Newton.....	J. T. Sharpenstein, Jasper.	Sacramento.....	Mrs. Minnie O'Neil, Sacramento.
Ouachita.....	J. J. Tibbits, Bearden.	San Benito.....	W. J. Cagney, Hollister.
Perry.....	W. B. Loudermilk, Adona.	San Bernardino.....	A. S. McPherron, San Bernardino.
Phillips.....	L. P. Anderson, Marvell.	San Diego.....	H. J. Baldwin, San Diego.
Pike.....	J. H. Webb, Delight.	San Francisco.....	A. Roncovieri, San Francisco.
Poinsett.....	H. B. Thorn (supt.), Harrisburg.	San Joaquin.....	J. W. Anderson, Stockton.
Polk.....	W. T. Adams (supt.), Mena.	San Luis Obispo...	W. S. Wight, San Luis Obispo.
Pope.....	E. H. Shinn, Russellville.	San Mateo.....	R. W. Cloud, Redwood City.
Prairie.....	J. C. Griffin (supt.), Hickory Plains.	Santa Barbara.....	Mamie V. Lehner, Santa Barbara.
Pulaski.....	R. H. Parham, Little Rock.	Santa Clara.....	D. T. Bateman, San Jose.
Randolph.....	E. W. Thompson, Pochontas.	Santa Cruz.....	C. S. Price, Santa Cruz.
		Shasta.....	Mrs. Lulu White Osborn, Redding.
		Sierra.....	Belle Alexander, Downieville.

VI.—COUNTY SUPERINTENDENTS—Continued.

County.	Superintendent.	County.	Superintendent.
CALIFORNIA—contd.		COLORADO—contd.	
Siskiyou.....	Willis H. Parker, Yreka.	Ouray.....	Alma Brockway, Ouray.
Solano.....	D. H. White, Fairfield.	Park.....	Nettie King, Jefferson.
Sonoma.....	Florence M. Barnes, Santa Rosa.	Phillips.....	Addie J. Zimmerman, Holyoke.
Stanislaus.....	Florence Boggs, Modesto.	Pitkin.....	Ethel Higinbotham, Aspen.
Sutter.....	H. W. Heiken, Yuba City.	Prowers.....	Mary Z. Lake, Lamar.
Tehama.....	Della D. Fish, Red Bluff.	Pueblo.....	Mrs. Lillie O. Baker, Pueblo.
Trinity.....	Mrs. M. Aldrich, Weaverville.	Rio Blanco.....	Mrs. Helena D. Lytle, Meeker.
Tulare.....	J. E. Buckman, Visalia.	Rio Grande.....	Charles E. Hart, Monte Vista.
Tuolumne.....	G. P. Morgan, Columbia.	Routt.....	Mrs. Emma H. Peck, Hayden.
Ventura.....	Jas. E. Reynolds, Ventura.	Saguache.....	S. E. Forbes, Saguache.
Yolo.....	Mrs. J. A. Henshall, Woodland.	San Juan.....	Mrs. Harriett E. Keyser, Silverton.
Yuba.....	Wm. P. Cramsie, Marysville.	San Miguel.....	Bertha L. Cameron, Telluride.
COLORADO.		Sedgwick.....	Besse Law, Julesburg.
Adams.....	Helen Lamb, Brighton	Summit.....	Jane A. Torkington, Breckenridge.
Alamosa.....	Ada Sunquist, Alamosa.	Teller.....	Mrs. Josephine B. Mays, Cripple Creek.
Arapahoe.....	Clarence E. Eddleblute, Littleton.	Washington.....	Mrs. Rose Bachman, Akron.
Archuleta.....	J. O. Vermillion, Pagosa Springs.	Weld.....	A. B. Copeland, Greeley.
Baca.....	Mrs. Mabel C. Kett, Springfield.	Yuma.....	Clara Tegner, Wray.
Bent.....	Allie V. Richmond, Las Animas.	DELAWARE.	
Boulder.....	J. H. Shriber, Boulder.	Kent.....	James E. Carroll, Dover.
Chaffee.....	Mrs. Rose W. Ridgway, Buena Vista.	Newcastle.....	Elmer L. Cross, New Castle.
Cheyenne.....	Mrs. Esther B. Weir, Cheyenne Wells.	Sussex.....	Ernest J. Hardesty, Georgetown.
Clear Creek.....	Mrs. Elizabeth Gleason, Georgetown.	FLORIDA.	
Conejos.....	F. O. Soule, Sanford.	Alachua.....	J. L. Kelley, Gainesville.
Costilla.....	Luther E. Bean, Garnett.	Baker.....	W. A. Dopson, Macclenny.
Crowley.....	Walter Dalby, Ordway.	Bay.....	E. L. Brigman, Panama City.
Custer.....	Dr. W. S. Butterbaugh, Westcliffe.	Bradford.....	F. G. Schell, Lake Butler.
Delta.....	Mrs. Adah Price, Delta.	Brevard.....	E. E. Macey, Eau Gallie.
Denver.....	Mrs. Emma G. Seldon, Denver.	Calhoun.....	J. Flake Durham, Blountstown.
Dolores.....	Mrs. Bessie Custis, Rico.	Citrus.....	R. L. Turner, Inverness.
Douglas.....	Mrs. Maude Hoskins, Castle Rock.	Clay.....	W. H. Biggs, Green Cove Springs.
Eagle.....	Ollie Graham, Redcliff.	Columbia.....	J. W. Burns, Lake City.
Elbert.....	Nora Deu Pree, Kiowa.	Dade.....	R. E. Hall, Miami.
El Paso.....	Inez Johnson Lewis, Colorado Springs.	De Soto.....	J. O. Bickley, Arcadia.
Fremont.....	Anna S. Garwood, Canon City.	Duval.....	F. A. Hathaway, Jacksonville.
Garfield.....	Mrs. Tippet Westerman, Glenwood Springs.	Escambia.....	A. S. Edwards, Pensacola.
Gilpin.....	Mrs. Isabella F. Mabree, Central City.	Franklin.....	A. A. Core, Apalachicola.
Grand.....	Rhea Gallinger, Granby.	Gadsden.....	C. H. Gray, Quincy.
Gunnison.....	Luella Johnson, Gunnison.	Hamilton.....	J. A. Jackson, Jasper.
Hinsdale.....	Mrs. Florence Maurer, Lake City.	Hernando.....	W. A. Thaxton, Brooksville.
Huerfano.....	Samuel J. Capps, Walsenburg.	Hillsboro.....	Marshall Moore, Tampa.
Jackson.....	Mrs. Minnie Bock, Walden.	Holmes.....	T. J. McDade, Bonifay.
Jefferson.....	Berness Bunker, Golden.	Jackson.....	Charles B. King, Marianna.
Kiowa.....	Nellie E. Lytle, Eads.	Jefferson.....	S. H. Taylor, Monticello.
Kit Carson.....	Jennie L. Tressel, Burlington.	Lafayette.....	G. N. Trawick, Mayo.
Lake.....	Mrs. Marion V. Crispell, Leadville.	Lake.....	W. T. Kennedy, Umatilla.
La Plata.....	Florence Salabar, Durango.	Lee.....	Joseph W. Sherrill, Fort Myers.
Larimer.....	Emma T. Wilkins, Fort Collins.	Leon.....	H. H. Isler, Tallahassee.
Las Animas.....	Elmore Floyd, Trinidad.	Levy.....	Thomas W. Price, Bronson.
Lincoln.....	Mrs. Della Winder, Hugo.	Liberty.....	J. E. Roberts, Bristol.
Logan.....	Flora A. Allison, Sterling.	Madison.....	G. W. Tedder, Madison.
Mesa.....	Mrs. Elizabeth Hinton, Grand Junction.	Manatee.....	W. M. Rowlett, Bradentown.
Mineral.....	Mrs. Mary N. Oates, North Creede.	Marion.....	J. H. Brinson, Ocala.
Moffat.....	George L. Bushyager, Craig.	Monroe.....	Virgil S. Lowe, Key West.
Montezuma.....	Mrs. Mary E. Taylor, Cortez.	Nassau.....	L. L. Owens, Evergreen.
Montrose.....	Emma Full, Montrose.	Orange.....	J. F. McKinnon, Orlando.
Morgan.....	Mrs. Anna R. White, Fort Morgan.	Osceola.....	W. J. Sears, Kissimmee.
Otero.....	S. S. Phillips, La Junta.	Palm Beach.....	H. W. Lewis, West Palm Beach.
		Pasco.....	J. W. Sanders, Dade City.
		Pinellas.....	Dixie M. Hollins, Clearwater.
		Polk.....	Chester A. Parker, Bartow.
		Putnam.....	J. D. Cottingham, Palatka.
		St. John.....	D. D. Corbett, St. Augustine.
		St. Lucie.....	J. W. Hodge, Viking.
		Santa Rosa.....	J. T. Diamond, Milton.
		Seminole.....	D. L. Thrasher, Sanford.
		Sumter.....	G. H. Tompkins, Wildwood.
		Suwanee.....	J. W. O'Hara, Live Oak.
		Taylor.....	Festus S. Jackson, Perry.

VI.—COUNTY SUPERINTENDENTS—Continued.

County.	Superintendent.	County.	Superintendent.
FLORIDA—contd.		GEORGIA—contd.	
Volusia.....	C. R. M. Sheppard, De Land.	Irwin.....	J. W. Weaver, Ocilla.
Wakulla.....	C. K. Allen, Sopchoppy.	Jackson.....	L. F. Elrod, Jefferson.
Walton.....	Dan N. Trotman, De Funiak Springs.	Jasper.....	J. M. Elizer, Monticello.
Washington.....	W. T. Horne, Vernon.	Jeff Davis.....	A. B. Hursey, Hazlehurst.
GEORGIA.		Jefferson.....	H. E. Smith, Bartow.
Appling.....	H. J. Parker, Baxley.	Jenkins.....	W. V. Lanier, Millen.
Baker.....	J. H. Hall, Newton.	Johnson.....	R. L. Sumner, Wrightsville.
Baldwin.....	N. H. Bullard, Milledgeville.	Jones.....	E. W. Sammons, Gray.
Banks.....	J. T. Wise, Baldwin.	Laurens.....	Z. Whitehurst, Dublin.
Bartow.....	Henry Milam, Cartersville.	Lee.....	A. M. Howell, Leesburg.
Ben Hill.....	R. J. Prentiss, Fitzgerald.	Liberty.....	E. B. Way, Flemington.
Berrien.....	W. G. Avera, Nashville.	Lincoln.....	Dr. W. B. Crawford, Lincoln- ton.
Bibb.....	C. H. Bruce, Macon.	Lowndes.....	J. H. O'Quinn, Valdosta.
Bleckley.....	I. A. Willis, Cochran.	Lumpkin.....	J. J. Seabolt, Dahlonega.
Brooks.....	John F. McCall, Quitman.	Macon.....	J. P. Nelson, Oglethorpe.
Bryan.....	Edward Benton, Pembroke.	Madison.....	J. A. Griffith, Danielsville.
Bulloch.....	B. R. Olliff, Statesboro.	Marion.....	T. B. Rainey, Buena Vista.
Burke.....	E. B. Gresham, Waynesboro.	McDuffie.....	M. W. Dunn, Thomson.
Butts.....	C. S. Maddox, Jackson.	McIntosh.....	W. A. Bramson, Darien.
Calhoun.....	B. W. Fortson, Arlington.	Meriwether.....	W. S. Howell, Greenville.
Camden.....	T. E. Casey, St. Marys.	Miller.....	B. B. Bush, Colquitt.
Campbell.....	W. H. McLarin, Fairburn.	Milton.....	Wm. Rhodes, Alpharetta.
Carroll.....	E. T. Steed, Carrollton.	Mitchell.....	B. W. Davis, Camilla.
Catoosa.....	Ansel M. Bandy, Ringgold.	Monroe.....	T. H. Phinazee, Forsyth.
Charlton.....	L. E. Mallard, Folkston.	Montgomery.....	A. B. Hutcheson, Mount Ver- non.
Chatham.....	Otis Ashmore, Savannah.	Morgan.....	E. S. Bird, Madison.
Chattahoochee.....	C. N. Howard, Cusseta.	Murray.....	R. Noel Steed, Spring Place.
Chattooga.....	S. E. Jones, Summerville.	Muscogee.....	J. L. Bond, Columbus.
Cherokee.....	T. A. Doss, Canton.	Newton.....	J. O. Martin, Covington.
Clarke.....	T. H. Dozier, Athens.	Oconee.....	J. W. McWhorter, Watkins- ville.
Clay.....	E. R. King, Fort Gaines.	Oglethorpe.....	M. S. Weaver, Lexington.
Clayton.....	J. H. Huie, Forest Park.	Paulding.....	H. C. Scoggins, Dallas.
Clinch.....	M. A. Cornelius, Homerville.	Pickens.....	C. H. Cox, Jasper.
Cobb.....	Bernard Awtrey, Marietta.	Pierce.....	R. D. Thomas, Blackshear.
Coffee.....	J. Gordon Floyd, Douglas.	Pike.....	G. B. Ridley, Zebulon.
Colquitt.....	Lee S. Dismuke, Moultrie.	Polk.....	Geo. E. Benedict, Cedartown.
Columbia.....	J. L. Weeks, Appling.	Pulaski.....	F. B. Asbell, Hawkinsville.
Coweta.....	J. E. Pendergrast, Newnan.	Putnam.....	W. C. Wright, Eatonton.
Crawford.....	J. N. Andrews, Roberta.	Quitman.....	H. M. Kalgler, Georgetown.
Crisp.....	J. W. Bivins, Cordele.	Rabun.....	L. M. Chastain, Burton.
Dade.....	G. A. R. Bible, Rising Fawn, R. F. D. 2.	Randolph.....	Walter McMichael, Cuthbert.
Dawson.....	E. L. Fowler, Dawsonville.	Richmond.....	Lawton B. Evans, Augusta.
Decatur.....	J. S. Bradwell, Bainbridge.	Rockdale.....	T. D. O'Kelly, Conyers.
Dekalb.....	R. E. Carroll, Decatur.	Schley.....	E. L. Bridges, Ellaville.
Dodge.....	M. W. Harrell, Eastman.	Screven.....	H. J. Arnett, Sylvania.
Dooly.....	E. G. Greene, Vienna.	Spalding.....	J. O. A. Miller, Pomona.
Dougherty.....	R. H. Warren, Albany.	Stephens.....	J. I. Allman, Toccoa.
Douglas.....	G. T. McLarty, Douglasville.	Stewart.....	W. T. Halliday, Lumpkin.
Early.....	E. A. Evans, Blakely.	Sumter.....	W. S. Moore, Americus.
Echols.....	J. G. Prime, Statenville.	Talbot.....	H. P. Hewitt, Talbotton.
Effingham.....	A. E. Byrd, Guyton.	Taliaferro.....	S. J. Flynt, Sharon.
Elbert.....	T. J. Cleveland, Elberton.	Tattnall.....	I. S. Smith, Reidsville.
Emanuel.....	Robert E. Rountree, Swains- boro.	Taylor.....	A. S. Wallace, Butler.
Fannin.....	J. W. Hughes, Blue Ridge.	Telfair.....	T. P. Windsor, McRae.
Fayette.....	W. N. D. Dixon, Fayetteville.	Terrell.....	J. W. F. Lowrey, Dawson.
Floyd.....	J. C. King, Rome.	Thomas.....	J. S. Searcy, Thomasville.
Forsyth.....	C. L. Harris, Cumming.	Tift.....	R. F. Keresy, Tifton.
Franklin.....	J. W. McFarland, Carnesville.	Toombs.....	G. C. Brantley, Lyons.
Fulton.....	E. C. Merry, Atlanta.	Towns.....	R. A. Kimsey, Hiwassee.
Gilmer.....	J. S. Hudson, Ellijay.	Troup.....	J. B. Strong, Lagrange.
Glascock.....	E. B. Rogers, Gibson.	Turner.....	Judson Johnson, Rebecca.
Glynn.....	N. H. Ballard, Brunswick.	Twiggs.....	B. S. Fitzpatrick, Fitzpatrick.
Gordon.....	Ernest Dillard, Calhoun.	Union.....	T. L. Patterson, Blairsville.
Grady.....	J. S. Weathers, Cairo.	Upson.....	J. A. Thurston, Thomaston.
Greene.....	W. A. Purks, White Plains.	Walker.....	R. D. Love, La Fayette.
Gwinnett.....	C. R. Ware, Lawrenceville.	Walton.....	R. L. Paine, Social Circle.
Habersham.....	P. R. Ivie, Clarkesville.	Ware.....	J. R. Bourn, Waycross.
Hall.....	J. D. Underwood, Gainesville.	Warren.....	R. W. Ware, Camak.
Hancock.....	J. L. McClesky, Sparta.	Washington.....	J. C. Harman, Sandersville.
Haralson.....	John W. White, Buchanan.	Wayne.....	B. D. Purcell, Jesup.
Harris.....	T. L. Thomason, Chipley.	Webster.....	J. F. Souter, Preston.
Hart.....	W. B. Morris, Hartwell.	Wheeler.....	J. R. Auld, Erick.
Heard.....	Hope H. Cook, Cooksville.	White.....	T. V. Cantrell, jr., Cleveland.
Henry.....	O. O. Tolleson, McDonough.	Whitfield.....	J. C. Sapp, Dalton.
Houston.....	F. M. Greene, Perry.	Wilcox.....	E. S. Hamilton, Abbeville.
		Wilkes.....	C. H. Calhoun, Washington.
		Wilkinson.....	J. H. Hoover, Irwinton.
		Worth.....	Walter R. Sumner, Sylvester.

VI. COUNTY SUPERINTENDENTS—Continued.

County.	Superintendent.	County.	Superintendent.
IDAHO.		ILLINOIS—contd.	
Ada.....	Ivy M. Wilson, Boise.	Hardin.....	Hattie M. Rittenhouse, Elizabethtown.
Adams.....	J. D. Neale, Council.	Henderson.....	Allen L. Beall, Oquawka.
Bannock.....	Mrs. Alice G. Cosgrove, Pocatello.	Henry.....	A. L. Odenweller, Cambridge.
Bear Lake.....	Alfred A. Hart, Paris.	Iroquois.....	F. A. Gilbreath, Watseka.
Bingham.....	Alice Beach, Blackfoot.	Jackson.....	Otto F. Aken, Murphysboro.
Blaine.....	Frances Mills, Hailey.	Jasper.....	E. B. Brooks, Newton.
Boise.....	Mrs. Blanche S. Darkwood, Idaho City.	Jefferson.....	Charles F. Lee, Mount Vernon.
Bonner.....	J. W. Ramsey, Sandpoint.	Jersey.....	Joseph W. Becker, Jerseyville.
Bonneville.....	Ella M. Miller, Idaho Falls.	Jo Daviess.....	B. L. Birkbeck, Galena.
Canyon.....	Z. Fay Fowler, Caldwell.	Johnson.....	Emma Rebman, Vienna.
Cassia.....	John I. Burgess, Albion.	Kane.....	E. A. Ellis, Geneva.
Clearwater.....	E. Maud Mix, Orofino.	Kankakee.....	S. D. Saltgiver, Kankakee.
Custer.....	Jennie E. Kelleher, Challis.	Kendall.....	George Elliot, Bristol.
Elmore.....	Mrs. Katie L. Smith, Mountain Home.	Knox.....	W. F. Boyes, Galesburg.
Franklin.....	Henry Simpson, Preston.	Lake.....	T. A. Simpson, Waukegan.
Fremont.....	Harriet C. Wood, St. Anthony.	La Salle.....	W. R. Foster, Ottawa.
Gooding.....	Mrs. Louise M. Dodge, Gooding.	Lawrence.....	Ed. Ashbaugh, Lawrenceville.
Idaho.....	P. M. Glanville, Grangeville.	Lee.....	L. W. Miller, Dixon.
Jefferson.....	W. S. Burton, Rigby.	Livingston.....	W. E. Herbert, Pontiac.
Kootenai.....	Robert C. Egbers, Coeur d'Alene.	Logan.....	D. F. Nickols, Lincoln.
Latah.....	Catherine T. Bryden, Moscow.	Macon.....	Mary W. Moore, Decatur.
Lemhi.....	Elizabeth McDonald, Salmon.	Macoupin.....	George W. Solomon, Carlinville.
Lewis.....	Retta Martin, Nez Perce.	Madison.....	H. T. McCrea, Edwardsville.
Lincoln.....	Stella Cook, Shoshone.	Marion.....	M. A. Thrasher, Salem.
Madison.....	R. F. Rasmussen, Rexburg.	Marshall.....	E. P. Nichols, Lacon.
Minidoka.....	Mrs. Adelaide T. Dampier, Rupert.	Mason.....	John Mehlhop, Havana.
Nez Perce.....	Ethel E. Redfield, Lewiston.	Massac.....	W. A. Spence, Metropolis.
Oneida.....	James C. Tovey, Malad.	McDonough.....	B. E. Decker, Macomb.
Owyhee.....	Mrs. Jennie F. Avery, Silver City.	McHenry.....	A. M. Shelton, Crystal Lake.
Power.....	Edwin W. Fifield, American Falls.	McLean.....	B. C. Moore, Bloomington.
Shoshone.....	Florence M. Zumhof, Wallace.	Menard.....	Mrs. E. B. Batterton, Petersburg.
Twin Falls.....	Bertha Noel, Twin Falls.	Mercer.....	C. L. Gregory, Alexo.
Washington.....	Mrs. Edna M. Lockwood Weiser.	Monroe.....	William C. Heyl, Waterloo.
ILLINOIS. ¹		Montgomery.....	Everett A. Lewey, Hillsboro.
Adams.....	John H. Steiner, Quincy.	Morgan.....	H. H. Vasconcellos, Jacksonville.
Alexander.....	Laura I. Milford, Cairo.	Moultrie.....	V. D. Roughton, Sullivan.
Bond.....	William E. White, Greenville.	Ogle.....	J. E. Cross, Oregon.
Boone.....	Elizabeth B. Harvey, Belvidere.	Peoria.....	J. A. Hayes, Peoria.
Brown.....	C. W. Sellars, Mount Sterling.	Perry.....	Elmo W. Lee, Pinckneyville.
Bureau.....	G. O. Smith, Princeton.	Platt.....	Chas. McIntosh, Monticello.
Calhoun.....	S. J. Sibley, Hardin.	Pike.....	John N. Clark, Pittsfield.
Carroll.....	John Hay, Mount Carroll.	Pope.....	R. R. Randolph, Golconda.
Cass.....	William E. Buck, Virginia.	Pulaski.....	May S. Hawkins, Mound City.
Champaign.....	Charles H. Watts, Urbana.	Putnam.....	W. A. Paxson, Hennepin.
Christian.....	H. L. Fowkes, Taylorville.	Randolph.....	L. W. Von Behren, Chester.
Clark.....	Harold Bright, Marshall.	Richland.....	Elmer Van Arsdall, Olney.
Clay.....	G. O. Lewis, Louisville.	Rock Island.....	Lou M. Harris, Rock Island.
Clinton.....	Wm. Johnston, Carlyle.	Saline.....	B. D. Gatas, Harrisburg.
Coles.....	W. Ed. Millar, Charleston.	Sangamon.....	E. C. Pruitt, Springfield.
Cook.....	E. J. Tobin, Chicago (C. H.).	Schuyler.....	Calvin L. Cain, Rushville.
Crawford.....	James T. Athey, Robinson.	Scott.....	John P. Ward, Winchester.
Cumberland.....	L. C. Markwell, Toledo.	Shelby.....	Lee W. Frazer, Shelbyville.
Dekalb.....	W. W. Coultas, Sycamore.	Stark.....	G. C. Baker, Toulon.
Dewitt.....	John L. Costley, Clinton.	St. Clair.....	W. A. Hough, Belleville.
Douglas.....	E. E. Gere, Tuscola.	Stephenson.....	Cyrus Grove, Freeport.
Dupage.....	R. T. Morgan, Wheaton.	Tazewell.....	Ben L. Smith, Pekin.
Edgar.....	O. Rice Jones, Paris.	Union.....	Charles O. Otrich, Jonesboro.
Edwards.....	Grant Balding, Albion.	Vermilion.....	Otis P. Haworth, Danville.
Effingham.....	J. W. Davis, Effingham.	Wabash.....	W. H. Wetzel, Mount Carmel.
Fayette.....	F. E. Crawford, Vandalia.	Warren.....	J. D. Regan, Monmouth.
Ford.....	H. M. Rudolph, Paxton.	Washington.....	Lee A. Friend, Nashville.
Franklin.....	H. Clay Ing, Benton.	Wayne.....	J. W. Galbraith, Fairfield.
Fulton.....	M. M. Cook, Lewistown.	White.....	Charles H. Mossberger, Carmi.
Gallatin.....	J. L. Greenlee, Equality.	Whiteside.....	H. B. Price, Morrison.
Greene.....	Rollins L. Scott, Carrollton.	Will.....	W. H. Nevens, Joliet.
Grundy.....	C. H. Root, Morris.	Williamson.....	J. W. McKinney, Marion.
Hamilton.....	W. W. Dally, McLeansboro.	Winnebago.....	Mrs. Abbie Jewitt Craig, Rockford.
Hancock.....	S. D. Faris, Carthage.	Woodford.....	Roy L. Moore, Eureka.
		INDIANA.	
		Adams.....	E. S. Christen, Decatur.
		Allen.....	D. O. McComb, Fort Wayne.
		Bartholomew.....	Samuel Sharp, Columbus.
		Benton.....	C. H. Dodson, Fowler.

¹ Elected Nov. 8, 1910, for term of four years.

VI.—COUNTY SUPERINTENDENTS—Continued.

County.	Superintendent.	County.	Superintendent.
INDIANA—contd.		INDIANA—contd.	
Blackford.....	M. C. Townsend, Hartford City.	Vigo.....	J. M. Propst, Terre Haute.
Boone.....	E. M. Servies, Lebanon.	Wabash.....	R. K. Devricks, Wabash.
Brown.....	Sylvester Barnes, Nashville.	Warren.....	Harry Evans, Williamsport.
Carroll.....	P. B. Hemmig, Delphi.	Warrick.....	A. J. Hopkins, Boonville.
Cass.....	A. L. Frantz, Logansport.	Washington.....	Orra Hopper, Salem.
Clark.....	Saml. L. Scott, Jeffersonville.	Wayne.....	C. O. Williams, Richmond.
Clay.....	Willis E. Akre, Brazil.	Wells.....	A. R. Huyette, Bluffton.
Clinton.....	M. W. Salmon, Frankfort.	White.....	Henry J. Reid, Monticello.
Crawford.....	Stuart A. Beals, English.	Whitley.....	A. R. Fleck, Columbia City.
Davies.....	A. O. Fulkerson, Washington.		
Dearborn.....	Geo. C. Cole, Lawrenceburg.	IOWA.	
Decatur.....	Frank C. Fields, Greensburg.	Adair.....	Adaline Brooks, Greenfield.
Dekalb.....	Lida Leasure, Auburn.	Adams.....	Mary Larson, Corning.
Delaware.....	Ernest J. Black, Muncie.	Allamakee.....	W. L. Peck, Waukon.
Dubois.....	William Melchior, Jasper.	Appanoose.....	Mrs. S. S. Webster, Center-ville.
Elkhart.....	A. E. Weaver, Goshen.		
Fayette.....	C. L. Trusler, Connersville.	Audubon.....	Ella M. Stearns, Audubon.
Floyd.....	Glenn V. Scott, New Albany.	Benton.....	Linnie Schloeman, Vinton.
Fountain.....	M. F. Livengood, Covington.	Black Hawk.....	Margaret Myers, Waterloo.
Franklin.....	T. J. McCarty, Brookville.	Boone.....	Gracia E. Tucker, Boone.
Fulton.....	Henry L. Becker, Rochester.	Bremer.....	Mary Gretzmeyer, Waverly.
Gibson.....	Wilbur F. Fisher, Princeton.	Buchanan.....	G. R. Lockwood, Independ-ence.
Grant.....	Charles H. Terrell, Marion.		
Greene.....	D. C. McIntosh, Bloomfield.	Buena Vista.....	H. C. Moehler, Storm Lake.
Hamilton.....	John F. Haines, Noblesville.	Butler.....	Irving H. Hart, Allison.
Hancock.....	G. J. Richman, Greenfield.	Calhoun.....	Emma Keller, Rockwell City.
Harrison.....	A. O. Deweese, Corydon.	Carroll.....	W. T. Bohnenkamp, Carroll.
Hendricks.....	Theo. T. Martin, Danville.	Cass.....	Jennie Ward, Atlantic.
Henry.....	H. B. Roberts, Newcastle.	Cedar.....	Ruby I. Lewis, Tipton.
Howard.....	Albert F. Hutson, Kokomo.	Cerro Gordo.....	C. T. Benson, Mason City.
Huntington.....	C. Funderburg, Huntington.	Cherokee.....	Lew McDonald, Cherokee.
Jackson.....	J. E. Payne, Brownstown.	Chickasaw.....	Esther H. Swenumson, New Hampton.
Jasper.....	Ernest Lamson, Rensselaer.		
Jay.....	W. R. Armstrong, Portland.	Clarke.....	Bessie Hart, Osceola.
Jefferson.....	Joseph H. Hanna, Madison.	Clay.....	Mary E. Riley, Spencer.
Jennings.....	S. E. Whitecomb, Vernon.	Clayton.....	Carl F. Becker, Elkader.
Johnson.....	Jesse C. Webb, Franklin.	Clinton.....	George E. Farrell, Clinton.
Knox.....	E. N. Haskins, Vincennes.	Crawford.....	F. N. Olry, Denison.
Kosciusko.....	E. B. Sarber, Warsaw.	Dallas.....	Carolyn Forgrave, Adel.
Lagrange.....	F. G. Smeltzly, Lagrange.	Davis.....	Agnes McConnell, Bloomfield.
Lake.....	F. F. Hieghway, Crown Point.	Decatur.....	Mabel Horner, Leon.
Laporte.....	Fred R. Farnam, Laporte.	Delaware.....	F. P. Walker, Manchester.
Lawrence.....	L. B. Sanders, Bedford.	Des Moines.....	Theresa Tiedemann, Burling-ton.
Madison.....	J. W. Frazier, Anderson.		
Marion.....	Leo E. Swails, Indianapolis.	Dickinson.....	Jennie Bailey, Spirit Lake.
Marshall.....	L. E. Steinebach, Plymouth.	Dubuque.....	Harry B. Smith, Dubuque.
Martin.....	C. O. Williams, Shoals.	Emmet.....	Ida A. Davis, Estherville.
Miami.....	E. B. Wetherow, Peru.	Fayette.....	Mrs. Belle Thorpe Ocker, West Union.
Monroe.....	W. H. Jones, Bloomington.		
Montgomery.....	Karl C. James, Crawfordsville.	Floyd.....	Mary D. Korinke, Charles City.
Morgan.....	W. D. Curtis, Martinsville.		
Newton.....	W. O. Schanlaub, Kentland.	Franklin.....	Delia McSwiggen, Hampton.
Noble.....	C. V. Kilgore, Albion.	Fremont.....	Mabel B. Jones, Sidney.
Ohio.....	C. H. French, Rising Sun.	Greene.....	H. C. Rollofrz, Jefferson.
Orange.....	C. E. Cogswell, Paoli.	Grundy.....	D. R. Earl, Grundy Center.
Owen.....	W. H. Stone, Spencer.	Guthrie.....	O. G. Hamilton, Guthrie Cen-ter.
Parke.....	H. J. Skeeters, Rockville.		
Perry.....	Lee B. Mullen, Cannelton.	Hamilton.....	E. F. Snow, Webster City.
Pike.....	Andrew Jewell, Petersburg.	Hancock.....	J. R. Baggs, Garner.
Porter.....	Fred H. Cole, Valparaiso.	Hardin.....	Blanch Stoddard, Eldora.
Posey.....	G. E. Behrens, Mount Vernon.	Harrison.....	Mrs. Susie Faith, Logan.
Pulaski.....	H. L. Rogers, Winamac.	Henry.....	Carolyn Campbell, Mount Pleasant.
Putnam.....	L. G. Wright, Greencastle.		
Randolph.....	Lee L. Driver, Winchester.	Howard.....	Zina Fessenden, Cresco.
Ripley.....	C. R. Hertenstein, Versailles.	Humboldt.....	Clarence Messer, Humboldt.
Rush.....	C. M. George, Rushville.	Ida.....	Wilson Jones, Ida Grove.
Scott.....	W. S. Griffith, Scottsburg.	Iowa.....	Mary F. McEachron, Marengo.
Shelby.....	W. Everson, Shelbyville.	Jackson.....	E. R. Stoddard, Maquoketa.
Spencer.....	J. W. Strassell, Rockport.	Jasper.....	Olive Shriner, Newton.
Starke.....	C. W. Cannon, Knox.	Jefferson.....	June Chidester, Fairfield.
St. Joseph.....	Ralph Longfield, South Bend.	Johnson.....	George H. Mullin, Iowa City.
Steuben.....	H. Lyle Shank, Angola.	Jones.....	Katherine E. Maurice, Ana-mosa.
Sullivan.....	Richard Park, Sullivan.		
Switzerland.....	O. M. Given, Vevay.	Keokuk.....	H. S. McVicker, Sigourney.
Tippecanoe.....	Brainard Hooker, La Fayette.	Kossuth.....	William Shirley, Algona.
Tipton.....	L. D. Summers, Tipton.	Lee.....	E. C. Lynn, Donnellson.
Union.....	Chas. C. Abernathy, Liberty.	Linn.....	A. B. Alderman, Marion.
Vanderburg.....	F. C. Ragland, Evansville.	Louisa.....	Izola M. Sweeney, Wapello.
Vermillion.....	R. H. Valentine, Newport.	Lucas.....	Myrtle A. Dungan, Chariton.

VI.—COUNTY SUPERINTENDENTS—Continued.

County.	Superintendent.	County.	Superintendent.
IOWA—continued.		KANSAS—continued.	
Lyon.....	E. T. Gilman, Rock Rapids.	Ellsworth.....	H. Coover, Ellsworth.
Madison.....	Carrie E. Ludlow, Winterset.	Finney.....	Lewis Keeler, Garden City.
Mahaska.....	Elizabeth Sheahan, Oskaloosa.	Ford.....	Eulalia Nervins, Dodge City.
Marion.....	Mrs. Mae Goldizen, Knoxville.	Franklin.....	Etta Joe McCoy, Ottawa.
Marshall.....	Gertrude E. Miller, Marshalltown.	Geary.....	Olivia H. Milley, Junction City.
Mills.....	G. E. Masters, Glenwood.	Gove.....	Charles D. Wilson, Gove.
Mitchell.....	C. W. Bond, Osage.	Graham.....	C. A. Beeby, Hill City.
Monona.....	Ella M. Gardner, Rock Rapids.	Grant.....	Mrs. Emily K. Hoelzel, New Ulysses.
Monroe.....	Myrta Harlow, Albia.	Gray.....	Mrs. Anna D. Erskine, Cimarron.
Montgomery.....	Clara A. Cowgill, Red Oak.	Greeley.....	A. R. Simpson, Tribune.
Muscatine.....	E. D. Bradley, Muscatine.	Greenwood.....	E. E. Brown, Eureka.
O'Brien.....	J. J. Billingsly, Pringhar.	Hamilton.....	Mrs. Etta Rummell, Syracuse.
Osceola.....	Mary De Boos, Sibley.	Harper.....	J. C. Palmer, Anthony.
Page.....	Mrs. Sarah Huftalen, Clarinda.	Harvey.....	Ruth E. Mitten, Newton.
Palo Alto.....	Margaret Ryan, Emmetsburg.	Haskell.....	Laura McElhinny, Santa Fe.
Plymouth.....	Anna Donahue, Le Mars.	Hodgeman.....	Mrs. Willia Maguire, Jetmore.
Pocahontas.....	Grace D. Bradshaw, Pocahontas.	Jackson.....	Elizabeth Warning, Holton.
Polk.....	Pearl DeJarnette, Des Moines.	Jefferson.....	Sudie Anderson, Oskaloosa.
Pottawattamie.....	F. J. Puryear, Council Bluffs.	Jewell.....	O. M. Chilcott, Mankato.
Poweshiek.....	Estella M. Coon, Brooklyn.	Johnson.....	May Cain, Olathe.
Ringgold.....	Etta J. Rider, Mount Ayr.	Kearny.....	Alice T. Harkness, Lakin.
Sac.....	John R. Slacks, Sac City.	Kingman.....	J. W. Wilson, Kingman.
Scott.....	Henry E. Ronge, Davenport.	Kiowa.....	N. T. Cox, Greensburg.
Shelby.....	Mrs. Rose M. Parker, Harlan.	Labette.....	Ida B. Marley, Oswego.
Sioux.....	F. E. Fuller, Orange City.	Lane.....	Erma Fallis, Dighton.
Story.....	Maude Wakefield, Nevada.	Leavenworth.....	E. Voorhees, Leavenworth.
Tama.....	Mrs. Mary A. Richards, Toledo.	Lincoln.....	J. F. Jennings, Lincoln.
Taylor.....	Dessie Jones, Bedford.	Linn.....	J. W. Hays, Mound City.
Union.....	Lora Lipsett, Creston.	Logan.....	Malcolm Peterson, Russell Springs.
Van Buren.....	Lizzie Meredith, Keosauqua.	Lyon.....	Mrs. Fanny R. Vickrey, Emporia.
Wapello.....	Mrs. E. Burgess, Ottumwa.	Marion.....	James A. Ray, Marion.
Warren.....	W. M. McGee, Indianola.	Marshall.....	P. N. Schmitt, Marysville.
Washington.....	Minnie R. Connor, Washington.	McPherson.....	I. C. Meyer, McPherson.
Wayne.....	Mrs. A. K. Pittard, Corydon.	Meade.....	Mrs. Pearl W. Smith, Meade.
Webster.....	Mary A. Carey, Fort Dodge.	Miami.....	Elizabeth Ellis, Paola.
Winnebago.....	L. C. Brown, Forest City.	Mitchell.....	Phillip Louthan, Beloit.
Winneshiek.....	H. E. Miller, Decorah.	Montgomery.....	Guy Smith, Independence.
Woodbury.....	T. B. Morris, Sioux City.	Morris.....	E. M. Jones, Council Grove.
Worth.....	Bella Lansrud, Northwood.	Morton.....	E. B. Dryden, Richfield.
Wright.....	M. L. Howell, Clarion.	Nemaha.....	W. R. Anthony, Seneca.
KANSAS.		Neosho.....	C. S. Swain, Erie.
Allen.....	Vide Fetherngill, Jola.	Ness.....	Edna Robison, Ness City.
Anderson.....	Hattie E. Woods, Garnett.	Norton.....	D. O. Hemphill, Norton.
Atchison.....	J. A. Shoemaker, Atchison.	Osage.....	C. A. Deardorff, Lyndon.
Barber.....	Margaret G. Kernohan, Medicine Lodge.	Osborne.....	Bertha Yoxall, Osborne.
Barton.....	Jennie B. Momyer, Great Bend.	Ottawa.....	Jessie Adeo, Minneapolis.
Bourbon.....	Minnie Stewart, Fort Scott.	Pawnee.....	Ida R. Curtis, Larned.
Brown.....	June G. Carothers, Hiawatha.	Phillips.....	Nettie W. Barber, Phillipsburg.
Butler.....	H. I. French, El Dorado.	Pottawatomie.....	G. F. Richardson, Westmoreland.
Chase.....	Anna E. Arnold, Cottonwood Falls.	Pratt.....	C. E. Bloxom, Pratt.
Chautauqua.....	J. E. Kibler, Sedan.	Rawlins.....	Abraham Davis, Atwood.
Cherokee.....	E. E. Stonecipher, Columbus.	Reno.....	S. P. Rowland, Hutchinson.
Cheyenne.....	Mrs. Nelle Maxson White, St. Francis.	Republic.....	Euna Arrasmith, Belleville.
Clark.....	Maggie M. Myers, Ashland.	Rice.....	Sylvia Burgess, Lyons.
Clay.....	T. C. Coffman, Clay Center.	Riley.....	Hannah Wetzig, Manhattan.
Cloud.....	Chloris Anderson, Concordia.	Rooks.....	J. W. Smith, Stockton.
Colley.....	Cora L. Tompkins, Burlington.	Rush.....	E. A. Kirkpatrick, La Crosse.
Comanche.....	Mary Willard, Coldwater.	Russell.....	Caleb Bodmer, Russell.
Cowley.....	M. May Adams, Winfield.	Saline.....	Mabel Marlin, Salina.
Crawford.....	J. W. Miley, Girard.	Scott.....	Mrs. Ida Clark, Scott.
Decatur.....	T. B. Wolf, Oberlin.	Sedgwick.....	D. S. Pence, Wichita.
Dickinson.....	W. O. Steen, Abilene.	Seward.....	A. B. Fullmer, Liberal.
Doniphan.....	Edna S. Whitney, Troy.	Shawnee.....	John F. Eby, Topeka.
Douglass.....	C. R. Hawley, Lawrence.	Sheridan.....	Fred E. Bear, Hoxie.
Edwards.....	C. M. Rankin, Kinsley.	Sherman.....	Clair McCall, Goodland.
Elk.....	Austin Kimzey, Howard.	Smith.....	Miles Elson, Smith Center.
Ellis.....	M. A. Basgall, Hays.	Stafford.....	Maude Spickard, St. John.
		Stanton.....	Elam Hilty, Johnson.
		Stevens.....	R. W. Ellsesser, Hugoton.
		Sumner.....	John R. Brooks, Wellington.
		Thomas.....	Alice Bieber, Colby.
		Trego.....	Carrie Stradal, Wakeeney

VI.—COUNTY SUPERINTENDENTS—Continued.

County.	Superintendent.	County.	Superintendent.
KANSAS—contd.		KENTUCKY—contd.	
Wabannsee.....	Annie G. Crouch, Alma.	Laurel.....	J. M. Feltner, London.
Wallace.....	Rose Gilbert, Sharon Springs.	Lawrence.....	J. H. Ekers, Louisa.
Washington.....	R. L. Rust, Washington.	Lee.....	W. D. Lucas, Beattyville.
Wichita.....	P. E. Metheney, Leoti.	Leslie.....	J. D. Muncy, Hyden.
Wilson.....	Fannie Butts, Fredonia.	Letcher.....	George W. Jenkins, Whitesburg.
Woodson.....	Mrs. Lottie Myers Pickering, Yates Center.	Lewis.....	J. Q. Adams, Vanceburg.
Wyandotte.....	H. G. Randall, Kansas City.	Lincoln.....	Garland Singleton, Stanford.
KENTUCKY.		Livingston.....	John Quertermous, Smithland.
Adair.....	Tobias Huffaker, Columbia.	Logan.....	P. M. Barnes, Russellville.
Allen.....	O. V. Trammel, Scottsville.	Lyon.....	N. G. Martin, Eddyville.
Anderson.....	Mrs. Lee M. Campbell, Lawrenceburg.	Madison.....	H. H. Brock, Richmond.
Ballard.....	J. E. Lane, Wickliffe.	Magoffin.....	S. S. Elam, Salyersville.
Barren.....	Nettie Depp, Glasgow.	Marion.....	J. W. Clarkson, Lebanon.
Bath.....	R. W. Kincaid, Owingsville.	Marshall.....	John E. Arant, Benton.
Bell.....	Simon Delph, Pineville.	Martin.....	U. G. Johnson, Inez.
Boone.....	Edgar C. Riley, Burlington.	Mason.....	Jessie O. Yancey, Maysville.
Bourbon.....	Mabel Robbins, Paris.	McCracken.....	M. V. Miller, Paducah.
Boyd.....	J. G. Rucker, Catlettsburg.	McCreary.....	Norah Alcorn, Whitley City.
Boyle.....	Mrs. Lydia Lewis, Danville.	McLean.....	R. M. Stroud, Calhoun.
Bracken.....	William Huffman, Brooksville.	Meade.....	L. H. Powell, Brandenburg.
Breathitt.....	William Turner, Jackson.	Menifee.....	W. O. Back, Frenchburg.
Breckinridge.....	J. W. Trent, Hardinsburg.	Mercer.....	Ora L. Adams, Harrodsburg.
Bullitt.....	Ora L. Roby, Shepherdsville.	Metcalfe.....	Avery Sartin, Edmonton.
Butler.....	A. L. Haynes, Morgantown.	Monroe.....	J. E. Martin, Tompkinsville.
Caldwell.....	Homer W. Nichols, Princeton.	Montgomery.....	Georgia Sledd, Mount Sterling.
Calloway.....	Lucile Grogan, Murray.	Morgan.....	Jas. W. Davis, West Liberty.
Campbell.....	J. W. Reiley, Alexandria.	Muhlenburg.....	Amy Longest, Greenville.
Carlisle.....	D. S. Bishop, Bardwell.	Nelson.....	W. T. McClain, Bardstown.
Carroll.....	Sallie Ford, Carrollton.	Nicholas.....	Lida E. Gardner, Carlisle.
Carter.....	W. E. Robinson, Grayson.	Ohio.....	Ozna Shultz, Hartford.
Casey.....	E. L. Cundiff, Liberty.	Oldham.....	J. W. Selph, La Grange.
Christian.....	L. E. Foster, Hopkinsville.	Owen.....	O. V. Jones, Owenton.
Clark.....	J. E. Lanter, Winchester.	Owsley.....	P. M. Frye, Booneville.
Clay.....	Luther Hatten, Manchester.	Pendleton.....	John N. Gosney, Falmouth.
Clinton.....	Ermon Sloan, Albany.	Perry.....	John McIntosh, Hazard.
Crittenden.....	E. J. Travis, Marion.	Pike.....	G. W. Potter, Pikeville.
Cumberland.....	Mrs. Cora S. Payne, Burksville.	Powell.....	Mrs. Kate S. Bohannon, Stanton.
Daviess.....	R. L. McFarland, Owensboro.	Pulaski.....	Henry C. Anderson, Somerset.
Edmonson.....	W. A. Pardue, Brownsville.	Robertson.....	Cleveland Moore, Mount Olivet.
Elliott.....	D. F. Gray, Sandy Hook.	Rockcastle.....	W. A. B. Davis, Mount Vernon.
Estill.....	J. H. Richardson, Irvine.	Rowan.....	J. H. Powers, Morehead.
Fayette.....	Mrs. Nannie G. Faulconer, Lexington.	Russell.....	J. W. Mitchell, Jamestown.
Fleming.....	L. N. Hull, Flemingsburg.	Scott.....	Mary Bradley, Georgetown.
Floyd.....	Oma Preston, Prestonsburg.	Shelby.....	L. H. Gregg, Shelbyville.
Franklin.....	L. D. Stucker, Frankfort.	Simpson.....	Charles Turner, Franklin.
Fulton.....	Virginia Luten, Hickman.	Spencer.....	Katie Beauchamp, Taylorsville.
Gallatin.....	Jas. R. McDanell, Warsaw.	Taylor.....	George Sapp, Campbellsville.
Garrard.....	Jennie Higgins, Lancaster.	Todd.....	Lucian Lindsay, Elkton.
Grant.....	B. N. Harrison, Williamstown.	Trigg.....	Calvert Wallace, Cadiz.
Graves.....	J. E. Coleman, Mayfield.	Trimble.....	Mrs. Carrie Hood, Bedford.
Grayson.....	Ella Lewis, Leitchfield.	Union.....	G. W. Curry, Morganfield.
Green.....	Lizzie Y. Graham, Greensburg.	Warren.....	O. P. Roemer, Bowling Green.
Greenup.....	Sophia E. Kitchen, Greenup.	Washington.....	Ella Shaunty, Springfield.
Hancock.....	Herman J. Rice, Hawesville.	Wayne.....	John C. Brammer, Monticello.
Hardin.....	J. A. Payne, Elizabethtown.	Webster.....	A. L. Lloyd, Dixon.
Harlan.....	W. L. Bailey, Harlan.	Whitley.....	E. F. Davis, Williamsburg.
Harrison.....	J. W. Rogers, Cynthia.	Wolfe.....	Taylor Shockey, Campton.
Hart.....	S. M. Durham, Munfordville.	Woodford.....	M. B. Hifner, Versailles.
Henderson.....	R. L. Cinnamon, Henderson.	LOUISIANA.¹	
Henry.....	J. W. Mitchell, Newcastle.	Acadia.....	J. W. Oxford, Crowley.
Hickman.....	W. L. Best, Clinton.	Allen.....	R. G. Corkern, Oberlin.
Hopkins.....	L. R. Ray, Madisonville.	Ascension.....	J. L. Rusca, Donaldsonville.
Jackson.....	J. J. Davis, McKee.	Assumption.....	S. A. Alleman, Napoleonville.
Jefferson.....	Orville Stivers, Louisville.	Avoyelles.....	J. M. Barham, Marksville.
Jessamine.....	C. C. Sandusky, Nicholasville.	Baton Rouge:	
Johnson.....	Fred Meade, Paintsville.	East.....	C. M. Hughes, Baton Rouge.
Kenton.....	J. C. Mills, Erlanger.	West.....	J. H. Bres, Port Allen.
Knott.....	Adam Campbell, Hindman.	Beauregard.....	L. D. McCollister, De Ridder.
Knox.....	W. W. Evans, Barbourville.	Bienville.....	E. H. Fisher, Arcadia.
Larue.....	E. W. Creal, Hodgenville.	Bossier.....	W. A. Fortson, Benton.
		Caddo.....	C. E. Byrd, Shreveport.

¹ Parish superintendents.

VI.—COUNTY SUPERINTENDENTS—Continued.

County.	Superintendent.	County.	Superintendent.
MICHIGAN—contd.		MINNESOTA—contd.	
Muskegon.....	Nellie B. Chisholm, Montague.	Martin.....	C. J. Timms, Fairmont.
Newaygo.....	Isabelle M. Becker, Fremont.	Meeker.....	Anna Onsdorff, Litchfield.
Oakland.....	A. L. Craft, Pontiac.	Mille Lacs.....	Guy Ewing, Princeton.
Oceana.....	Emma Hutchins, Hart.	Morrison.....	M. E. Barnes, Little Falls.
Ogemaw.....	Josephine Woods, West Branch.	Mower.....	Mrs. Eunice L. Rice, Austin.
Ontonagon.....	A. C. Adair, Rockland.	Murray.....	Jennie Holm, Slayton.
Oscoda.....	Geo. F. Roxburgh, Reed City.	Nicollet.....	Albert J. Holmstead, St. Peter.
Oscoda.....	J. H. Speck, Mio.	Nobles.....	E. K. Sampson, Worthington.
Otsego.....	Ray F. Jennings, Vanderbilt.	Norman.....	Maria Lovanes, Ada.
Ottawa.....	N. R. Stanton, Holland.	Olmsted.....	Wm. L. Mercer, Rochester.
Presque Isle.....	M. H. Nester, Rogers.	Otter Tail.....	L. R. Adley, Fergus Falls.
Roscommon.....	Ellen McCrea, Roscommon.	Pennington.....	E. A. Mostue, Thief River Falls.
Saginaw.....	B. S. Tefft, Saginaw, W. S.	Pine.....	R. H. Blankenship, Pine City.
St. Clair.....	E. T. Blackney, Port Huron.	Pipestone.....	J. R. Campbell, Pipestone.
St. Joseph.....	F. J. Wheeler, Centerville.	Polk.....	N. A. Thorson, Crookston.
Sanilac.....	W. J. Musselman, Sandusky.	Pope.....	Lena Otteson, Glenwood.
Schoolcraft.....	W. T. S. Cornell, Manistique.	Ramsey.....	Geo. H. Reif, St. Paul, Court House.
Shiawassee.....	H. E. Slocum, Corunna.	Red Lake.....	Lou F. Green, Red Lake Falls.
Tuscola.....	B. H. McComb, Caro.	Redwood.....	Mrs. Adella H. Pratt, Redwood Falls.
Van Buren.....	V. R. Hungerford, Paw Paw.	Renville.....	Amalia M. Bengtson, Renville.
Washtenaw.....	Evan Essery, Ann Arbor.	Rice.....	J. H. Lewis, Faribault.
Wayne.....	E. W. Yost, Detroit.	Rock.....	Edia A. Hadley, Luverne.
Wexford.....	W. H. Faunce, Cadillac.	Roseau.....	Eddy E. Billberg, Roseau.
MINNESOTA.		St. Louis.....	N. A. Young, Duluth.
Aitkin.....	Mrs. Rachel Young, Aitkin.	Scott.....	T. J. Nickolay, Shakopee.
Anoka.....	Geo. D. Goodrich, Anoka.	Sherburne.....	Mamie E. Hartfelder, Elk River.
Becker.....	Anna G. Rogstad, Detroit.	Sibley.....	W. M. Carver, Gaylord.
Beltrami.....	W. B. Stewart, Bemidji.	Stearns.....	W. A. Boerger, St. Cloud.
Benton.....	Agnes K. Burns, Sauk Rapids.	Steele.....	James A. Mork, Owatonna.
Big Stone.....	Anna Swenson, Ortonville.	Stevens.....	Ray S. Roberts, Morris.
Blue Earth.....	W. H. Detamore, Mankato.	Swift.....	Tillie S. Thomason, Benson.
Brown.....	Robt. B. Kennedy, New Ulm.	Todd.....	Victor S. Knutson, Long Prairie.
Carlton.....	Nora A. Nilsen, Moose Lake.	Traverse.....	Bessie Caswell, Wheaton.
Carver.....	F. L. Williams, Watertown.	Wabasha.....	Harry V. Fick, Lake City.
Cass.....	R. F. Ross, Walker.	Wadena.....	Maude R. Kennedy, Wadena.
Chippewa.....	Petra Storaker, Montevideo.	Waseca.....	H. C. Van Loh, Waseca.
Chicago.....	E. J. Cedarholm, Center City.	Washington.....	E. N. Swanson, Stillwater.
Clay.....	Eleanor Rushfeldt, Moorhead.	Watsonwan.....	Mabel Madson, St. James.
Clearwater.....	Henry E. Sorvig, Bagley.	Wilkin.....	A. S. Gravig, Breckenridge.
Cook.....	Claus C. Monker, Grand Marais.	Winona.....	A. C. Loomis, Winona.
Cottonwood.....	Alfred R. Iverson, Windom.	Wright.....	A. A. Zech, Annandale.
Crow Wing.....	Irma C. Hartley, Brainerd.	Yellow Medicine.....	Lue A. Olds, Granite Falls.
Dakota.....	John P. Karpen, Hastings.	MISSISSIPPI.	
Dodge.....	Alma B. Campbell, Mantorville.	Adams.....	J. W. Henderson, Natchez.
Douglas.....	Geo. Susens, Alexandria.	Alcorn.....	W. A. McCord, Corinth.
Faribault.....	Margaret E. Bieri, Blue Earth.	Amite.....	F. H. Butler, Liberty.
Fillmore.....	Oscar Carlson, Preston.	Attala.....	W. A. Hull, Kosciusko.
Freeborn.....	Harold Dahlen, Albert Lea.	Benton.....	W. T. Renick, Ashland.
Goodhue.....	E. B. Bergquist, Red Wing.	Bolivar.....	A. C. Pearman, Rosedale.
Grant.....	Blanche L. Brennin, Elbow Lake.	Calhoun.....	J. O. Rich, Pittsboro.
Hennepin.....	H. I. Harter, Minneapolis, Court House.	Carroll.....	C. A. Neal, Carrollton.
Houston.....	Marie Otterness, Caledonia.	Chickasaw.....	Geo. D. Riley, Okolona.
Hubbard.....	D. R. Bradford, Park Rapids.	Choctaw.....	Sam C. Ray, Ackerman.
Isanti.....	Mrs. M. B. Hixson, Cambridge.	Clarborne.....	T. V. Rush, Port Gibson.
Itasca.....	Mrs. Estelle Whipple, Grand Rapids.	Clarke.....	J. R. Brock, Quitman.
Jackson.....	J. B. Arr, Jackson.	Clay.....	Paul Townsend, West Point.
Kanabec.....	Willis Fairbanks, Mora.	Coahoma.....	J. M. Brooks, Clarksdale.
Kandiyohi.....	W. D. Frederickson, Willmar.	Copiah.....	A. A. McAlpin, Hazlehurst.
Kittson.....	Hans Hanson, Hallock.	Covington.....	Bura Hilburn, Collins.
Koochiching.....	Anna E. Shelland, International Falls.	De Soto.....	R. E. L. Morgan, Hernando.
Lac qui Parle.....	A. J. Kittleson, Madison.	Forrest.....	E. J. Currie, Hattiesburg.
Lake.....	Mrs. Alice W. Lawrence, Two Harbors.	Franklin.....	W. L. Foreman, Meadville.
Le Sueur.....	J. A. Meagher, Le Sueur Center.	George.....	W. A. Avera, Lucedale.
Lincoln.....	J. T. Clawson, Ivanhoe.	Greene.....	Joe Walley, Leakesville.
Lyon.....	H. R. Painter, Marshall.	Grenada.....	V. R. James, Grenada.
McLeod.....	Geo. F. Munier, Hutchinson.	Hancock.....	John Craft, Bay St. Louis.
Mahnomen.....	James Sweeney, Mahnomen.	Harrison.....	J. J. Dawsey, Gulfport.
Marshall.....	David Johnson, Warren.	Hinds.....	C. S. North, Raymond.
		Holmes.....	J. M. Kimbrough, Lexington.
		Issaquena.....	George Robinson, Mayersville.
		Itawamba.....	W. G. Crouch, Fulton.

VI.—COUNTY SUPERINTENDENTS—Continued.

County.	Superintendent.	County.	Superintendent.
MISSISSIPPI—contd.		MISSOURI—contd.	
Jackson.....	Guy D. Dean, Scranton.	Chariton.....	C. C. Carlstead, Keytesville.
Jasper.....	L. R. Massey, Bay Springs.	Christian.....	Tom Mapes, Ozark.
Jefferson.....	L. L. Posey, Fayette.	Clark.....	Helen McKee, Kahoka.
Jefferson Davis.....	W. W. Lee, Prentiss.	Clay.....	E. L. Black, Liberty.
Jones.....	L. J. Stringer, Laurel.	Clinton.....	Maudine Wyatt, Plattsburg.
Kemper.....	W. F. Brown, De Kalb.	Cole.....	J. S. Lumpkin, Jefferson City.
Lafayette.....	H. T. Smith, Oxford.	Cooper.....	D. L. Rothgeb, Boonville.
Lamar.....	A. Q. Broadus, Purvis.	Crawford.....	Wm. P. Summers, Steelville.
Lauderdale.....	John R. Ellis, Meridian.	Dade.....	Ed. H. Carender, Greenfield.
Lawrence.....	Tom J. White, Monticello.	Dallas.....	John A. Pitman, Buffalo.
Leake.....	W. E. Martin, Carthage.	Daviess.....	I. J. Voglegesang, Gallatin.
Lee.....	T. M. Milam, Tupelo.	Dekalb.....	W. O. Swalls, Clarksdale.
Leflore.....	J. R. Hughes, Greenwood.	Dent.....	Jas. W. Millsap, Salem.
Lincoln.....	Z. C. Hodges, Brookhaven.	Douglas.....	John Levan, Ava.
Lowndes.....	S. M. Nash, Columbus.	Dunklin.....	E. D. McAnally, Kennett.
Madison.....	G. R. Bennett, Canton.	Franklin.....	A. F. Borberg, Union.
Marion.....	Fred Barnes, Columbia.	Gasconade.....	C. M. Danuser, Hermann.
Marshall.....	John P. Horton, Holly Springs.	Gentry.....	C. H. Allen, Albany.
Monroe.....	E. E. Cowley, Aberdeen.	Greene.....	J. R. Roberts, Springfield.
Montgomery.....	Guy C. Burton, Winona.	Grundy.....	Elizabeth Brainerd, Trenton.
Neshoba.....	H. Y. Graham, Philadelphia.	Harrison.....	Nellie K. Sutton, Bethany.
Newton.....	W. W. Coursey, Decatur.	Henry.....	Uel W. Lamkin, Clinton.
Noxubee.....	Jas. R. Jackson, Macon.	Hickory.....	S. Z. Odenbaugh, Hermitage.
Oktibbeha.....	A. E. Green, Starkville.	Holt.....	Earl A. Rock, Oregon.
Panola.....	C. B. Young, Sardis.	Howard.....	Levi Markland, Armstrong.
Pearl River.....	C. E. Bass, Poplarville.	Howell.....	W. C. McMillin, West Plains.
Perry.....	W. F. Backstrom, New Augusta.	Iron.....	B. P. Burnham, Ironton.
Pike.....	S. W. Simmons, Magnolia.	Jackson.....	L. F. Blackburn, Independence.
Pontotoc.....	J. M. Spain, Pontotoc.	Jasper.....	L. W. Kost, Carthage.
Prentiss.....	R. E. L. Sutherland, Booneville.	Jefferson.....	R. B. Wilson, Hillsboro.
Quitman.....	F. M. Bizzell, Marks.	Johnson.....	R. H. Boston, Warrensburg.
Rankin.....	H. H. Bullock, Brandon.	Knox.....	W. E. Cottey, Edina.
Scott.....	A. C. Walters, Forest.	Laclede.....	F. W. Ploger, Lebanon.
Sharkey.....	Jno. S. Joor, sr., Rolling Fork.	Lafayette.....	H. T. Phillips, Lexington.
Simpson.....	J. R. Williamson, Mendenhall.	Lawrence.....	D. W. Clayton, Mount Vernon.
Smith.....	W. P. Searcy, Raleigh.	Lewis.....	Lloyd H. Hicks, Monticello.
Sunflower.....	C. T. Bookout, Indianola.	Lincoln.....	Zula Thurman, Troy.
Tallahatchie.....	R. H. Harrison, Charleston.	Linn.....	E. L. Joyce, Brookfield.
Tate.....	Ira G. Allen, Senatobia.	Livingston.....	J. W. McCormick, Chillicothe.
Tippah.....	L. H. Jobe, Ripley.	McDonald.....	W. H. Baker, Pineville.
Tishomingo.....	N. L. Phillips, Iuka.	Macon.....	O. L. Cross, Macon.
Tunica.....	J. W. Henderson, Tunica.	Madison.....	F. C. Baker, Fredericktown.
Union.....	W. T. Smith, New Albany.	Maries.....	C. N. Cooper, Weldon.
Walthall.....	J. J. Lee, Tylertown.	Marion.....	Frankie Connell, Hannibal.
Warren.....	J. H. Culkin, Vicksburg.	Mercer.....	W. B. Kesterson, Princeton.
Washington.....	S. Archer sr., Greenville.	Miller.....	Jas. Messersmith, Tusculumbia.
Wayne.....	C. W. Walley, Waynesboro.	Mississippi.....	Mrs. C. E. Graham, Charleston.
Webster.....	J. B. Scott, Walthall.	Moniteau.....	C. J. Ladman, California.
Wilkinson.....	John C. Day, Woodville.	Monroe.....	John L. Carter, Paris.
Winston.....	E. C. Lovorn, Louisville.	Montgomery.....	W. F. Hupe, Montgomery City.
Yalobusha.....	R. P. Hentz, Water Valley.	Morgan.....	Wray Witten, Versailles.
Yazoo.....	W. W. Lockard, Yazoo City.	New Madrid.....	L. O. Swan, New Madrid.
		Newton.....	W. E. Veerkamp, Neosho.
		Nodaway.....	W. M. Oakerson, Maryville.
		Oregon.....	H. M. Williams, Alton.
		Osage.....	R. H. Bryan, Linn.
		Ozark.....	A. J. Kimball, Gainesville.
		Pemiscot.....	Chas. G. Ross, Caruthersville.
		Perry.....	J. G. Reddick, Perryville.
		Pettis.....	T. R. Luckett, Sedalia.
		Phelps.....	John A. Mooney, Rolla.
		Pike.....	W. Nora Mitchell, Bowling Green.
		Platte.....	J. F. Sexton, Platte City.
		Polk.....	Daisy Johnson, Bolivar.
		Pulaski.....	L. J. Gladden, Loquey.
		Putnam.....	W. K. Armstrong, Unionville.
		Rails.....	O. E. Hulse, New London.
		Randolph.....	S. B. McCully, Moberly.
		Ray.....	W. T. McGaugh, Richmond.
		Reynolds.....	Lula Barton, Centerville.
		Ripley.....	H. E. Braschler, Doniphan.
		St. Charles.....	P. J. McKinley, St. Charles.
		St. Clair.....	C. E. Higgins, Osceola.
		St. Francois.....	A. H. Akers, Farmington.
		Ste. Genevieve.....	Jos. King, Ste. Genevieve.
MISSOURI.			
Adair.....	F. E. Patrick, Kirksville.		
Andrew.....	Leslie M. Dobbs, Savannah.		
Atchison.....	Sallie V. Grebe, Rock Port.		
Audrain.....	W. C. Johnson, Mexico.		
Barry.....	W. E. Hankins, Cassville.		
Barton.....	L. E. Brous, Lamar.		
Bates.....	P. M. Allison, Butler.		
Benton.....	Chas. G. Harvey, Warsaw.		
Bollinger.....	Wilbur M. Welker, Marble Hill.		
Boone.....	Geo. T. Porter, Columbia.		
Buchanan.....	Geo. K. Gilpin, St. Joseph.		
Butler.....	C. A. Roberson, Poplar Bluff.		
Caldwell.....	D. N. McClintock, Kingston.		
Calloway.....	R. G. Hale, Fulton.		
Camden.....	M. E. Johnson, Linn Creek.		
Cape Girardeau.....	J. T. McDonald, Jackson.		
Carroll.....	C. N. Canady, Carrollton.		
Carter.....	W. S. Perrin, Ellsinore.		
Cass.....	T. J. Walker, Harrisonville.		
Cedar.....	W. H. Riley, Stockton.		

VI.—COUNTY SUPERINTENDENTS—Continued.

County.	Superintendent.	County	Superintendents
MISSOURI—contd.		NEBRASKA—contd.	
St. Louis.....	W. T. Bender, Clayton.	Box Butte.....	Opal Russell, Alliance.
Saline.....	J. L. Lynch, Marshall.	Boyd.....	Zazel Sloniger, Butte.
Schuyler.....	Mrs. Belle Bunch, Lancaster.	Brown.....	Emma Burritt, Ainsworth.
Scotland.....	I. M. Horn, Memphis.	Buffalo.....	J. S. Elliott, Kearney.
Scott.....	Chas. D. Harris, Benton.	Burt.....	W. T. Poucher, Tekamah.
Shannon.....	Walter Webb, Eminence.	Butler.....	Oma L. Cady, David City.
Shelby.....	Mrs. Myrtle Threlkeld, Shelbyville.	Cass.....	Eda Marquardt, Plattsmouth.
Stoddard.....	A. F. Asa, Bloomfield.	Cedar.....	Emma Schwerdt, Hartington.
Stone.....	L. V. Threlfall, Galena.	Chase.....	Evea Moreland, Imperial.
Sullivan.....	Roxana Jones, Milan.	Cherry.....	Edith Adamson, Valentine.
Taney.....	John W. Bennett, Forsyth.	Cheyenne.....	Anna McFadden, Sidney.
Texas.....	J. O. Payne, Houston.	Clay.....	Mabel E. Kirk, Clay Center.
Vernon.....	W. Y. Foster, Nevada.	Collax.....	F. J. Vogltance, Schuyler.
Warren.....	F. W. Kehr, Marthasville.	Cuming.....	Emma R. Miller, West Point.
Washington.....	Burwell Fox, Potosi.	Custer.....	T. C. Grimes, Broken Bow.
Wayne.....	C. E. Burton, Piedmont.	Dakota.....	Margaret A. Murphy, Dakota.
Webster.....	Lon Yates, Marshfield.	Dawes.....	Carrie L. Munkres, Chadron.
Worth.....	Mrs. Cora Early, Grant City.	Dawson.....	W. C. Bloom, Lexington.
Wright.....	John M. Carter, Hartville.	Deuel.....	Mrs. Retta F. Brown, Chappell.
MONTANA.		Dixon.....	A. V. Teed, Ponca.
Beaverhead.....	Mayme F. French, Dillon.	Dodge.....	J. M. Matzen, Fremont.
Big Horn.....	C. Bernice Myers, Hardin.	Douglas.....	W. A. Yoder, Omaha.
Blaine.....	Margaret Vandon, Chinook.	Dundy.....	Lorna L. White, Benkelman.
Broadwater.....	Lizzie Barker, Townsend.	Fillmore.....	Lillian D. Green, Geneva.
Carbon.....	Nora L. Hogan, Red Lodge.	Franklin.....	Mrs. Ruth Erman, Bloomington.
Cascade.....	Annie McAnelly, Great Falls.	Frontier.....	H. F. Aduddell, Stockville.
Chouteau.....	May Flanagan, Fort Benton.	Furnas.....	G. W. Fletcher, Beaver City.
Custer.....	Emma Fritz, Miles City.	Gage.....	Thomas J. Trauernicht, Beatrice.
Dawson.....	Camilla Osborne, Glendive.	Garden.....	N
Deer Lodge.....	Mabel Sharp, Anaconda.	Garfield.....	J.
Fallon.....	Annette Leonard, Baker.	Gosper.....	F
Fergus.....	Mrs. Lola Baker, Lewistown.	Grant.....	T
Flathead.....	Mary Eckstein, Kalispell.	Greeley.....	M
Gallatin.....	Ida W. Davis, Bozeman.	Hall.....	D
Granite.....	Mrs. Lottie T. Irvine, Philipsburg.	Hamilton.....	M
Hill.....	Grace Lovett, Havre.	Harlan.....	M
Jefferson.....	Mabel Haynes, Boulder.	Hayes.....	E
Jewell and Clark.....	Eva Harrington, Helena.	Hitchcock.....	L
Lincoln.....	Mrs. Ella L. Hess, Libby.	Holt.....	M
Madison.....	Mrs. Phebe Williams, Virginia City.	Hooker.....	J
Meagher.....	Mary J. Davies, White Sulphur Springs.	Howard.....	V
Mineral.....	Mrs. M. Leota Wright, Superior.	Jefferson.....	E
Missoula.....	Mary P. Shull, Missoula.	Johnson.....	L
Musselshell.....	Minnie Ferguson, Roundup.	Kearney.....	C
Park.....	Maud Brown, Livingston.	Kelth.....	H
Powell.....	Emma D. Johnson, Deer Lodge.	Keya Paha.....	G
Ravalli.....	Bethelm Irwin, Hamilton.	Kimball.....	E
Richland.....	Dell Hoyt, Sidney.	Knox.....	A
Rosebud.....	Fay Alderson, Forsyth.	Lancaster.....	V
Sanders.....	Mrs. G. D. Fox, Thompson Falls.	Lincoln.....	A
Sheridan.....	Irene Murphy, Plentywood.	Logan.....	A
Silver Bow.....	Julia Shea, Butte.	Loup.....	L
Stillwater.....	Gertrude Sylvester, Columbus.	Melpherson.....	E
Sweet Grass.....	Inga Solberg, Big Timber.	Madison.....	N
Teton.....	Mrs. Nellie R. Brown, Chouteau.	Merrick.....	Margaret McCutchen, Central City.
Toole.....	Marion G. Valentine, Shelby.	Morrill.....	Cora A. Thompson, Bridgeport.
Valley.....	Alene McGregor, Glasgow.	Nance.....	C
Wibaux.....	Mrs. Maude B. Wills, Wibaux.	Nemaha.....	J
Yellowstone.....	Mrs. L. J. Wilson, Billings.	Nuckolls.....	E
NEBRASKA.		Otoe.....	C
Adams.....	Carrie Sullivan, Hastings.	Pawnee.....	E
Antelope.....	D. M. Murphy, Neligh.	Perkins.....	I
Arthur.....	Minnie C. Hawkins, Arthur.	Phelps.....	A
Banner.....	Minnie Larson, Harrisburg.	Pierce.....	I
Blaine.....	A. L. Shamblin, Brewster.	Platte.....	I
Boone.....	Hannah C. Johnson, Albion.	Polk.....	A
		Red Willow.....	J
		Richardson.....	I
		Rock.....	I
		Saline.....	I
		Sarpy.....	I
		Saunders.....	A

VI.—COUNTY SUPERINTENDENTS—Continued.

County.	Superintendent.	County.	Superintendent.
NEBRASKA—contd.		NORTH CAROLINA—continued.	
Scotts Bluff.....	Ada Haldeman, Gering.	Avery.....	Frank A. Edmonson, Newland.
Seward.....	W. H. Brokaw, Seward.	Beaufort.....	W. G. Privett, Washington.
Sheridan.....	C. P. Kelley, Rushville.	Bertie.....	H. W. Early, Windsor.
Sherman.....	L. H. Currier, Loup City.	Bladen.....	B. J. Cromartie, Garland.
Sioux.....	Mary J. Fenske, Harrison.	Brunswick.....	M. C. Guthrie, Southport.
Stanton.....	Ilah B. Ohlson, Stanton.	Buncombe.....	W. H. Hipps, Asheville.
Thayer.....	A. T. Holtzen, Hebron.	Burke.....	T. L. Sigmon, Morganton.
Thomas.....	Clara B. Runyan, Thedford.	Cabarrus.....	D. S. Lippard, Concord.
Thurston.....	Carrie J. Kellner, Pender.	Caldwell.....	Y. D. Moore, Lenoir.
Valley.....	W. H. Staven, Ord.	Camden.....	F. M. Eason, Camden.
Washington.....	N. T. Lund, Blair.	Carteret.....	L. B. Ennett, Cedar Point.
Wayne.....	Pearl Sewell, Wayne.	Caswell.....	G. A. Anderson, Yanceyville.
Webster.....	Gertrude L. Coon, Red Cloud.	Catawba.....	George E. Long, Newton.
Wheeler.....	Edith Bowler, Bartlett.	Chatham.....	R. P. Johnson, Pittsboro.
York.....	T. C. Lord, York.	Cherokee.....	A. L. Martin, Murphy.
NEW JERSEY.		Chowan.....	J. O. Alderman, Edenton.
Atlantic.....	H. M. Cressman, Egg Harbor City.	Clay.....	T. C. Scroggs, Brasstown.
Bergen.....	B. C. Wooster, Hackensack.	Cleveland.....	J. Y. Irvin, Shelby.
Burlington.....	H. A. Stees, Mount Holly.	Columbus.....	F. T. Wooten, Chadbourn.
Camden.....	C. S. Albertson, Magnolia.	Craven.....	S. M. Brinson, Newbern.
Cape May.....	Aaron W. Hand, Cape May Court House.	Cumberland.....	B. T. McBryde, Fayetteville.
Cumberland.....	J. J. Unger, Bridgeton.	Currituck.....	J. M. Newbern, Jarvisburg.
Essex.....	Oliver J. Morelock, Newark.	Dare.....	B. G. Crisp, Manteo.
Gloucester.....	D. T. Steelman, Woodbury.	Davidson.....	P. L. Feezor, Lexington.
Hudson.....	Charles C. Stimets, Jersey City.	Davie.....	F. P. Bradley, Mocksville.
Hunterdon.....	J. S. Hoffman, Flemington.	Duplin.....	M. H. Wooten, Kenansville.
Mercer.....	J. M. Arnold, Princeton.	Durham.....	C. W. Massey, Durham.
Middlesex.....	H. B. Willis, New Brunswick.	Edgecombe.....	W. H. Pittman, Tarboro.
Monmouth.....	John Enright, Freehold.	Forsyth.....	W. B. Speas, Winston-Salem.
Morris.....	J. H. Hulsart, Morristown.	Franklin.....	E. L. Best, Louisburg.
Ocean.....	C. A. Morris, Toms River.	Gaston.....	F. P. Hall, Belmont.
Passaic.....	E. W. Garrison, Paterson.	Gates.....	T. W. Costen, Gates.
Salem.....	H. C. Dixon, Salem.	Graham.....	J. H. Moody, Robbinsville.
Somerset.....	Henry C. Krebs, Somerville.	Granville.....	J. F. Webb, Oxford.
Sussex.....	Ralph Decker, Newton.	Greene.....	J. E. Debnam, Snow Hill.
Union.....	A. L. Johnson, Elizabeth.	Guilford.....	Thos. R. Foust, Greensboro.
Warren.....	F. T. Atwood, Belvidere.	Halifax.....	A. S. Harrison, Enfield.
NEW MEXICO.		Harnett.....	J. D. Ezzell, Dunn.
Bernalillo.....	Atanasio Montoya, Albuquerque.	Haywood.....	R. A. Sentell, Waynesville.
Chaves.....	C. C. Hill, Roswell.	Henderson.....	W. S. Shille, Hendersonville.
Colfax.....	Mrs. Josie Lockard, Raton.	Hertford.....	J. C. Scarborough, Winton.
Curry.....	L. C. Mersfelder, Clovis.	Hoke.....	J. A. McGoogan, Raeford.
Dona Ana.....	Frank M. Hayner, Las Cruces.	Hyde.....	S. J. Beckwith, Lake Landing.
Eddy.....	W. A. Poore, Carlsbad.	Iredell.....	R. M. Gray, Statesville.
Grant.....	Miss L. L. Eckles, Silver City.	Jackson.....	David H. Brown, Webster.
Guadalupe.....	J. V. Gallegos, Santa Rosa.	Johnston.....	L. T. Royall, Smithfield.
Lincoln.....	Mrs. Wallace L. Gumm, Carrizozo.	Jones.....	John R. Barker, Trenton.
Luna.....	Miss G. G. Goebel, Deming.	Lee.....	E. M. Judd, Sanford.
Mora.....	Manuel Madrid, Mora.	Lenoir.....	Joseph Kinsey, Kinston.
McKinley.....	W. D. Cornell, Gallup.	Lincoln.....	S. C. Garrison, Lincolnton.
Otero.....	R. S. Tipton, Alamogordo.	Macon.....	M. D. Billings, Franklin.
Quay.....	E. Paek, Tucumcari.	Madison.....	R. G. Anders, Marshall.
Rio Arriba.....	David Martinez, jr., Velarde.	Martin.....	A. J. Manning, Jamesville.
Roosevelt.....	Mrs. S. F. Culberson, Portales.	McDowell.....	M. S. Giles, Marion.
Sandoval.....	Bonifacio Montoya, Bernalillo.	Mecklenburg.....	William McCluskey, Charlotte.
San Juan.....	J. L. G. Swinney, Aztec.	Mitchell.....	D. W. Greene, Wing.
San Miguel.....	M. F. Desmarais, Las Vegas.	Montgomery.....	W. A. Cochran, Troy.
Santa Fe.....	J. V. Conway, Santa Fe.	Moore.....	John A. McLeod, Carthage.
Sierra.....	F. I. Given, Hillsboro.	Nash.....	Oscar Creech, Nashville.
Socorro.....	Benjamin Sanchez, Socorro.	New Hanover.....	W. Catlett, Wilmington.
Taos.....	Jose Montaner, Taos.	Northampton.....	P. J. Long, Jackson.
Torrance.....	Charles L. Burt, Mountainair.	Onslow.....	W. M. Thompson, Richlands.
Union.....	H. H. Errett, Clayton.	Orange.....	S. P. Lockhart, Hillsboro.
Valencia.....	Saturnino Baca, Belen.	Pamlico.....	T. B. Attmore, Stonewall.
NORTH CAROLINA.		Pasquotank.....	W. M. Hinton, Elizabeth City.
Alamance.....	J. B. Robertson, Graham.	Pender.....	T. T. Murphy, Atkinson.
Alexander.....	A. F. Sharpe, Stony Point.	Perquimans.....	W. G. Gaither, Hertford.
Alleghany.....	J. M. Cheek, Whitehead.	Person.....	J. A. Beam, Roxboro.
Anson.....	P. J. Kiker, Wadesboro.	Pitt.....	S. B. Underwood, Greenville.
Ashe.....	C. M. Dickson, Grassy.	Polk.....	E. W. S. Cobb, Columbus.
		Randolph.....	T. F. Bulla, Asheboro.
		Richmond.....	W. R. Coppedge, Rockingham.
		Robeson.....	J. R. Poole, Lumberton.
		Rockingham.....	L. N. Hickerson, Wentworth.
		Rowan.....	R. G. Kizer, Salisbury.
		Rutherford.....	B. H. Bridges, Rutherfordton.
		Sampson.....	L. L. Matthews, Clinton.
		Scotland.....	L. M. Peele, Gibson.
		Stanly.....	E. F. Eddins, Palmerville.

VI.—COUNTY SUPERINTENDENTS Continued

County.	Superintendent.	County.	Superintendent
NORTH CAROLINA— continued.		OHIO— contd.	
Stokes.....	J. T. Smith, King.	Athens.....	Alex. Root, Athens.
Surry.....	J. H. Allen, Elkin.	Auglaize.....	E.
Swain.....	J. M. Smiley, Bryson City.	Belmont.....	G.
Transylvania.....	T. C. Henderson, Brevard.	Brown.....	E.
Tyrell.....	John W. Darden, Plymouth.	Butler.....	Jo.
Union.....	R. N. Nisbet, Monroe.	Carroll.....	G.
Vance.....	E. M. Rollins, Henderson.	Champaign.....	J.
Wake.....	Z. V. Judd, Raleigh.	Clark.....	J.
Warren.....	H. F. Jones, Warrenton.	Clermont.....	H.
Washington.....	J. S. Spruill, Columbia.	Clinton.....	J.
Watauga.....	B. B. Dougherty, Boone.	Columbiana.....	son,
Wayne.....	E. T. Atkinson, Goldsboro.	Coshocton.....	John W. Moore, Lisbon.
Wilkes.....	C. C. Wright, Hunting Creek.	Crawford.....	L. C. Shaw, Coshocton.
Wilson.....	C. L. Coon, Wilson.	Cuyahoga.....	P. G. Bittkofer, Bucyrus.
Yadkin.....	W. D. Martin, East Bend.	Darke.....	A. G. Yawberg, Cleveland.
Yancey.....	W. O. Griffith, Winton.	Defiance.....	C. A. Wilt, Greenville.
NORTH DAKOTA		Delaware.....	W. W. Hester, Defiance.
Adams.....	Rose C. Wagner, Hettinger.	Delaware.....	Paul M. Lybarger, Delaware.
Barnes.....	Minnie I. Nelson, Valley City.	Erie.....	R. E. Offenbauer, Sandusky.
Benson.....	Peter Anderson, Minnewau-	Fairfield.....	C. C. Miller, Lancaster.
	kan.	Fayette.....	Frank M. Allen, Washington
Billings.....	H. H. Bond, Medora.		Court House.
Bottineau.....	H. E. Layne, Bottineau.	Franklin.....	Wm. S. Coy, Columbus.
Bowman.....	H. O. Saxvik, Bowman.	Fulton.....	C. J. Blery, Wauson.
Burke.....	C. E. Wolf, Bowbells.	Gallia.....	Wayne Lutz, Gallipolis.
Burlingame.....	C. L. Vignes, Bismarck.	Genoa.....	Harold Ryder, Chardon.
Cass.....	J. W. Rusey, Fargo.	Greene.....	F. M. Reynolds, Xenia.
Cassia.....	F. J. Rehner, Langdon.	Guernsey.....	W. G. Wolfe, Cambridge.
Deer.....	Mary Flemington, Ellendale.	Hamilton.....	Thos. P. Pierce, Cincinnati.
Divide.....	J. H. Phelps, Crosby.	Hancock.....	A. J. Nowlan, Findlay.
Dunn.....	Lois L. Viall, Manning.	Hardin.....	F. P. Allen, Kerton.
Edwards.....	H. H. Maxwell, New Rock-	Harrison.....	John C. Stiers, Cadiz.
	ford.	Henry.....	W. T. Hatcher, Napoleon.
Emmons.....	Lester Briggie, Linton.	Highland.....	W. H. Vance, Hillsboro.
Foster.....	Mary K. Beatty, Carrington.	Hocking.....	W. C. Brushares, Logan.
Golden Valley.....	Mrs. Jessie S. Kinsey, Sentinel	Holmes.....	F. H. Closs, Mulersburg.
	Butte.	Huron.....	O. C. Minnich, Norwalk.
Grand Forks.....	M. Beatrice Johnstone, Grand	Jackson.....	M. A. Henson, Jackson.
	Forks.	Jefferson.....	H. I. Everson, Steubenville.
Griggs.....	J. A. Kampen, Cooperstown.	Knox.....	W. F. Algire, Mount Vernon.
Hettinger.....	Margaret Kennedy, Mott.	Lake.....	F. H. Kendall, Painesville.
Kidder.....	Lydia Hinman, Steele.	Lawrence.....	V. F. Dillon, Ironton.
Lamoure.....	Laura B. Sanderson, La	Licking.....	Elmer W. Jordan, Newark.
	Moun.	Logan.....	John W. Mackinnon, Belle-
Logan.....	S. R. Elbert, Napoleon.		fontaine.
McHenry.....	A. Cornell Berg, Towner.	Lorain.....	W. A. Hiscov, Elyria.
McIntosh.....	F. N. Fullerton, Ashley.	Lucas.....	John W. Zeller, Toledo.
McKenzie.....	F. J. Staefek, Schafer.	Madison.....	J. E. Runyan, London.
McLean.....	John L. Brekken, Washburn.	Mahoning.....	Jerome Hull, Youngstown.
Meyer.....	R. B. Thomas, Stanton.	Marion.....	Vernon Riegel, Marion.
Morton.....	W. F. Lorin, Mandan.	Medina.....	G. C. Jenks, Medina.
Mountrail.....	V. A. Lovell, Stanley.	Meigs.....	G. H. Crow, Pomeroy.
Nelson.....	P. J. Iverson, Lakota.	Mercer.....	S. Cotterman, Celina.
Oliver.....	Frank Karges, Pinto.	Miami.....	L. J. Bennett, Troy.
Pembina.....	Charlotte A. Jones, Cavalier.	Monroe.....	J. V. Nelson, Woodfield.
Pierce.....	Sara Guss, Rugby.	Montgomery.....	A. A. Mavalles, Dayton.
Ramsey.....	John A. Haig, Devils Lake.	Morgan.....	Clarence G. Johnson, McCon-
Ransom.....	C. E. Cayett, Lisbon.		nellsville.
Renville.....	L. M. Rockne, Mohall.	Morrow.....	C. E. Davis, Mount Gilead.
Richland.....	Charles Hanson, Wahpeton.	Muskingum.....	John S. McGinnis, Zanesville.
Rolette.....	Mrs. Mary K. Packard, Rolla.	Noble.....	E. E. Miller, Caldwell.
Sargent.....	Henry Ulva, Forman.	Ottawa.....	A. O. Dehn, Port Clinton.
Sheridan.....	E. O. Kieve, McClusky.	Paulding.....	John C. Berg, Paulding.
Stark.....	C. E. Ward, Dickinson.	Perry.....	W. J. Banks, New Lexington.
Steele.....	Blondie Holt, Sherbrooke.	Pickaway.....	J. H. Cook, Circleville.
Sturtevant.....	Mary E. McGinnis, James-	Pike.....	E. N. Deitrich, Waverly.
	town.	Portage.....	H. B. Turner, Ravenna.
Towder.....	Munie Sorenson, Cando.	Preble.....	W. S. Fogarty, Eaton.
Trell.....	Guri Wambheim, Hillsboro.	Putnam.....	G. J. Keindahl, Ottawa.
Wabash.....	Edward Erickson, Grafton.	Richland.....	E. W. Bell, Mansfield.
Ward.....	W. D. Wendt, Minot.	Ross.....	C. A. Puckett, Chillicothe.
Wells.....	Mrs. S. Nertrout, Essenden.	Sandusky.....	R. A. Wales, Fremont.
Williams.....	Anna Peterson, Williston.	Schoon.....	Edw. McGowan, Portsmouth.
		Seneca.....	J. E. Sherck, Tiffin.
		Shelby.....	W. F. Partington, Sidney.
		Stark.....	J. J. Armstrong, Canton.
		Summit.....	C. A. Flickinger, Akron.
		Tecumseh.....	J. E. Boettcher, Warren.
		Tuscarawas.....	Chas. Barthelme's, New Phil-
			adelphia.
		Union.....	D. H. Sellers, Marysville.
OHIO.			
Adams.....	H. E. Downing, West Union.		
Allen.....	C. A. Argonbright, Lima.		
Ashland.....	W. W. Wager, Ashland.		
Ashtabula.....	H. D. Clarke, Jefferson.		

VI.—COUNTY SUPERINTENDENTS—Continued.

County.	Superintendent.	County.	Superintendent.
OHIO—contd.		OKLAHOMA—contd.	
Van Wert.....	J. A. Greulich, Van Wert.	Pushmataha.....	W. C. Payne, Antlers.
Vinton.....	C. H. Copeland, McArthur.	Roger Mills.....	A. T. Burge, Cheyenne.
Warren.....	Fletcher Hawke, Lebanon.	Rogers.....	J. C. Dougherty, Claremore.
Washington.....	M. C. Smith, Marietta.	Seminole.....	L. L. Sturgeon, Wewoka.
Wayne.....	G. W. Baumgardner, Wooster.	Sequoyah.....	J. H. Dodson, Sallisaw.
Williams.....	W. A. Salter, Bryan.	Stephens.....	L. A. Morton, Duncan.
Wood.....	H. E. Hall, Bowling Green.	Texas.....	Nettie B. Lynch, Guymon.
Wyandot.....	James J. Grove, Upper Sandusky.	Tillman.....	E. B. Nelms, Frederick.
OKLAHOMA.		Tulsa.....	H. D. Maxwell, Tulsa.
Adair.....	G. M. Hagan, Stilwell.	Wagoner.....	Chas. Comstock, Wagoner.
Alfalfa.....	J. W. Higginbotham, Cherokee.	Washington.....	Helen L. Dunaway, Bartlesville.
Atoka.....	Virginia McCleary, Atoka.	Washita.....	J. M. Wallace, Cordell.
Beaver.....	H. C. Fellows, Beaver.	Woods.....	F. O. Hays, Alva.
Beckham.....	Martha Barrett, Sayre.	Woodward.....	W. L. Pitman, Woodward.
Blaine.....	Daisy M. Pratt, Watonga.	OREGON.	
Bryan.....	C. L. Neeley, Durant.	Baker.....	J. F. Smith, Baker.
Caddo.....	Mrs. Nettie Daniels Wamsley, Anadarko.	Benton.....	R. E. Cannon, Corvallis.
Canadian.....	Mina Jackson, El Reno.	Clackamas.....	J. E. Calavan, Oregon City.
Carter.....	L. M. Thurston, Ardmore.	Clatsop.....	O. H. Byland, Astoria.
Cherokee.....	Mrs. Sallie Parris Foreman, Tahlequah.	Columbia.....	J. W. Allen, St. Helens.
Choctaw.....	J. T. Reed, Hugo.	Coos.....	R. E. Baker, Coquille.
Cimarron.....	Walter Kennedy, Boise City.	Crook.....	J. E. Myers, Prineville.
Cleveland.....	Kate Barbour, Norman.	Curry.....	G. W. Smith, Gold Beach.
Coal.....	H. M. Shirley, Coalgate.	Douglas.....	O. C. Brown, Roseburg.
Comanche.....	Mrs. Janette S. Crosby, Lawton.	Gilliam.....	J. C. Sturgill, Condon.
Cotton.....	A. C. Woodward, Walter.	Grant.....	W. W. Austen, Hamilton.
Craig.....	Tom W. Smith, Vinita.	Harney.....	L. M. Hamilton, Buchanan.
Creek.....	Jesse Burgess, Sapulpa.	Hood River.....	C. D. Thompson, Hood River.
Custer.....	Geo. A. Meacham, Arapaho.	Jackson.....	J. Percy Wells, Jacksonville.
Delaware.....	J. Grover Scales, Jay.	Josephine.....	Lincoln Savage, Grants Pass.
Dewey.....	Fred L. Hoyt, Taloga.	Klamath.....	Fred Peterson, Klamath Falls.
Ellis.....	Chas. Cochran, Arnett.	Lake.....	C. E. Oliver, Lakeview.
Garfield.....	Jas. W. Tyler, Enid.	Lane.....	E. J. Moore, Eugene.
Garvin.....	Pearl Bradfield, Pauls Valley.	Lincoln.....	R. P. Goin, Toledo.
Grady.....	G. F. Newell, Chickasha.	Linn.....	W. L. Jackson, Albany.
Grant.....	Lew Dervage, Medford.	Malheur.....	Fay Clark, Vale.
Greer.....	Kate Terry, Mangum.	Marion.....	W. M. Smith, Salem.
Harmon.....	J. W. Bridges, Hollis.	Morrow.....	S. E. Notson, Heppner.
Harper.....	W. D. Drake, Buffalo.	Multnomah.....	A. P. Armstrong, Portland.
Haskell.....	Will C. Shelton, Stigler.	Polk.....	H. C. Seymour, Dallas.
Hughes.....	Mrs. Florence M. Green, Holdenville.	Sherman.....	F. E. Fagan, Moro.
Jackson.....	Lloyd R. Lowery, Altus.	Tillamook.....	W. S. Buel, Tillamook.
Jefferson.....	J. M. Dyer, Waurika.	Umatilla.....	I. E. Young, Pendleton.
Johnston.....	T. D. D. Quaid, Tishomingo.	Union.....	A. E. Ivanhoe, La Grande.
Kay.....	A. D. Kersey, Newkirk.	Wallowa.....	J. C. Conley, Enterprise.
Kingfisher.....	Mrs. Sarah Liston, Kingfisher.	Wasco.....	C. T. Bonney, The Dalles.
Kiowa.....	Miss A. E. Lane, Hobart.	Washington.....	B. W. Barnes, Hillsboro.
Latimer.....	C. E. Fair, Wilburton.	Wheeler.....	H. J. Simmons, Mitchell.
Le Flore.....	Claude B. Norris, Poteau.	Yamhill.....	S. S. Duncan, McMinnville.
Lincoln.....	P. G. Rawdon, Chandler.	PENNSYLVANIA.	
Logan.....	Margaret Doolittle, Guthrie.	Adams.....	H. Milton Roth, Gettysburg.
Love.....	T. D. Felts, Marietta.	Allegheny.....	Saml. Hamilton, Wilkinsburg.
Major.....	T. E. McLain, Fairview.	Armstrong.....	C. M. Heilman, Kittanning.
Marshall.....	Wesley Fox, Madill.	Beaver.....	David C. Locke, Beaver.
Mayes.....	Carlotta Archer, Pryor.	Bedford.....	Lloyd H. Hinkle, Alum Bank.
Murray.....	E. L. Newman, Sulphur.	Berks.....	E. M. Rapp, Reading.
Muskogee.....	E. N. Collette, Muskogee.	Blair.....	T. S. Davis, Altoona.
McClain.....	S. M. McCuiston, Purcell.	Bradford.....	H. S. Putnam, Towanda.
McCurtain.....	L. N. Gray, Idabel.	Bucks.....	J. H. Hoffman, Doylestown.
McIntosh.....	Chas. H. Wilson, Eufaula.	Butler.....	F. A. McClung, Butler.
Noble.....	C. G. Vannest, Perry.	Cambria.....	M. S. Bentz, Ebensburg.
Nowata.....	W. E. Slack, Nowata.	Cameron.....	C. E. Plasterer, Emporium.
Okfuskee.....	J. L. Matthews, Okemah.	Carbon.....	J. J. Bevan, Mauch Chunk.
Oklahoma.....	Mrs. Anna Burks-Love, Oklahoma.	Center.....	D. O. Etters, State College.
Okmulgee.....	J. D. Campbell, Okmulgee.	Chester.....	Thomas A. Bock, Westchester.
Osage.....	Mrs. T. L. Lillard, Pawhuska.	Clarion.....	N. E. Heeter, Clarion.
Ottawa.....	J. T. Davis, Miami.	Clearfield.....	Cyrus A. Weisgerber, Clearfield.
Pawnee.....	T. W. Skinner, Pawnee.	Clinton.....	I. N. McCloskey, Lock Haven.
Payne.....	W. R. Jones, Stillwater.	Columbia.....	Wm. W. Evans, Bloomsburg.
Pittsburg.....	T. T. Lewis, McAlester.	Crawford.....	P. D. Blair, Meadville.
Pontotoc.....	W. T. Melton, Ada.	Cumberland.....	J. Kelso Green, Carlisle.
Pottawatomie.....	Gladys Whittett, Tecumseh.	Dauphin.....	Frank E. Shambaugh, Lykens.
		Delaware.....	A. G. C. Smith, Media.

VI.—COUNTY SUPERINTENDENTS—Continued.

County.	Superintendent.	County.	Superintendent.
PENNSYLVANIA— continued.		SOUTH CAROLINA— continued.	
Elk.....	J. W. Sweeney, St. Marys.	Laurens.....	J. H. Sullivan, Laurens.
Erie.....	I. H. Russell, North East.	Lee.....	J. T. Munnerlyn, Bishopville.
Fayette.....	John S. Carroll, Uniontown.	Lexington.....	H. L. Harmon, Lexington.
Forest.....	J. O. Carson, Tionesta.	Marion.....	W. C. Rogers, Marion.
Franklin.....	L. E. Smith, Chambersburg.	Marlboro.....	A. V. Roessel, Bennettsville.
Fulton.....	J. Emery Thomas, McCon-	Newberry.....	George D. Brown, Newberry.
	nellsburg.	Oconee.....	Thomas A. Smith, Walhalla.
Greene.....	H. D. Freeland, Waynesburg.	Orangeburg.....	L. W. Livingston, Orange-
Huntingdon.....	L. E. Boyer, Huntingdon.		burg.
Indiana.....	J. F. Chapman, Indiana.	Pickens.....	R. T. Hallum, Pickens.
Jefferson.....	L. Mayne Jones, Brookville.	Richland.....	S. M. Clarkson, Columbia.
Juniata.....	C. E. Kauffman, McAlister-	Saluda.....	J. A. Carson, Saluda.
	ville.	Spartanburg.....	J. H. Brannon, Spartanburg.
Lackawanna.....	J. C. Taylor, Scranton.	Sumter.....	J. H. Haynsworth, Sumter.
Lancaster.....	Daniel Fleisher, Lancaster.	Union.....	H. C. Little, Union.
Lawrence.....	W. Lee Gilmore, New Castle.	Williamsburg.....	R. N. Spoigner, Kingstree.
Lebanon.....	John W. Snoke, Lebanon.	York.....	J. E. Carroll, Yorkville.
Lehigh.....	Alvin Rupp, Allentown.		
Luzerne.....	F. P. Hopper, Wilkes-Barre.	SOUTH DAKOTA.	
Lycoming.....	G. B. Milnor, Muncy.	Aurora.....	D. F. Baughman, Plankin-
McKean.....	C. W. Lillibridge, Smethport.		ton.
Mercer.....	H. E. McConnell, Mercer.	Beadle.....	Mary C. Byrnes, Huron.
Mifflin.....	Lawrence Ruble, McVeytown.	Bennett.....	Wm. M. Robertson, Martin.
Monroe.....	Frank Koehler, Stroudsburg.	Bon Homme.....	G. G. Fltes, Tyndall.
Montgomery.....	J. H. Landis, Norristown.	Brookings.....	Gertrude Steadman, Brook-
Montour.....	C. W. Derr, Washingtonville.		ings.
Northampton.....	Geo. A. Grim, Nazareth.	Brown.....	Lucille J. Trott, Aberdeen.
Northumberland.....	I. H. Mauser, Sunbury.	Brule.....	Evalena Rossman, Chamber-
Perry.....	D. A. Kline, New Bloomfield.		lain.
Pike.....	L. Westbrook, Matamoras.	Buffalo.....	Elva Dye, Gann Valley.
Potter.....	R. O. Welfling, Coudersport.	Butte.....	Emma T. Wood, Belle
Schuylkill.....	L. Seltzer, Pottsville.		Fourche.
Snyder.....	T. A. Stetler, Middleburg.	Campbell.....	E. C. Slocum, Mound City.
Somerset.....	D. W. Seibert, Somerset.	Charles Mix.....	Cora E. Stone, Geddes.
Sullivan.....	Harry R. Henning, Lopez.	Clark.....	Hattie Pickles, Clark.
Susquehanna.....	Geo. A. Stearns, Kingsley.	Clay.....	Alice Cope, Vermillion.
Tioga.....	E. A. Retan, Mansfield.	Codington.....	C. K. Overhulse, Watertown.
Union.....	Wm. W. Spigelmyer, Mifflin-	Corson.....	Mrs. Regina Getman, McIn-
	burg.		tosh.
Venango.....	D. W. Armstrong, Franklin.	Custer.....	Norma Hsley, Custer.
Warren.....	C. S. Knapp, Warren.	Davison.....	Lille Patterson, Mitchell.
Washington.....	L. R. Crumrine, Washington.	Day.....	J. H. Hetloy, Webster.
Wayne.....	J. J. Koehler, Honesdale.	Deuel.....	C. G. St. John, Clear Lake.
Westmoreland.....	Robt. C. Shaw, Greensburg.	Dewey.....	A. H. Neutzman, Timber
Wyoming.....	John E. Morgan, Nicholson.		Lake.
York.....	C. W. Stine, York.	Douglas.....	Altha A. Moad, Armour.
		Edmunds.....	Janette W. Lewis, Ipswich.
SOUTH CAROLINA.		Fall River.....	Irene Ferguson, Hot Springs.
Abbeville.....	J. M. Lawson, Abbeville.	Faulk.....	Mrs. Hattie Marsh, Faulkton.
Aiken.....	C. H. Seigler, Aiken.	Grant.....	H. C. Souder, Milbank.
Anderson.....	J. B. Felton, Anderson.	Gregory.....	G. G. Warner, Fairfax.
Bamberg.....	R. W. D. Rowell, Bamberg.	Hamlin.....	Gilbert I. Ruden, Castlewood.
Barnwell.....	H. J. Crouch, Barnwell.	Hand.....	May Rudd, Miller.
Beaufort.....	B. H. Boyd, Hardeeville.	Hanson.....	Ethelyn Graves, Alexandria.
Berkeley.....	A. H. De Hay, Moncks	Harding.....	Alice Goggins, Buffalo.
	Corner.	Hughes.....	Margaret Linden, Pierre.
Calhoun.....	F. G. Crout, St. Matthews.	Hutchinson.....	W. O. Lamb, Tripp.
Charleston.....	E. P. Waring, Charleston.	Hyde.....	Mabel Wood, Highmore.
Cherokee.....	E. S. McKown, Gaffney.	Jerauld.....	Will Bromwell, Wessington
Chester.....	W. D. Knox, Chester.		Spring.
Chesterfield.....	R. A. Rouse, Chesterfield.	Kingsbury.....	H. M. Best, De Smet.
Clarendon.....	E. J. Browne, Manning.	Lake.....	Della Sheridan, Madison.
Colleton.....	H. S. Strickland, Walterboro.	Lawrence.....	Florence Glenn, Deadwood.
Darlington.....	D. L. Lewis, Darlington.	Lincoln.....	H. M. Dale, Canton.
Dillon.....	R. S. Rogers, Dillon.	Lyman.....	P. P. Bruce, Oacoma.
Dorchester.....	J. J. Howell, St. George.	McCook.....	E. A. Kaech, Salem.
Edgefield.....	W. W. Fuller, Edgefield.	McPherson.....	George Hickman, Leola.
Fairfield.....	W. W. Turner, Winnsboro.	Marshall.....	Elsie Vander Horck, Britton.
Florence.....	A. H. Gasque, Florence.	Meade.....	Demah Dillehe, Sturgis.
Georgetown.....	J. W. Doar, Georgetown.	Mellette.....	Thomas Green, White River.
Greenville.....	J. B. Davis, Greenville.	Miner.....	Nellie C. Delaney, Howard.
Greenwood.....	J. F. Wideman, Greenwood.	Minnchaha.....	T. T. Thompson, Sioux Falls.
Hampton.....	J. W. Rouse, Hampton.	Moody.....	Mabel Grange, Flandreau.
Horry.....	S. H. Brown, Conway.	Pennington.....	Laura J. Platt, Rapid City.
Jasper.....	J. B. Benton, Ridgeland.	Perkins.....	F. S. Salisbury, Bison.
Kershaw.....	C. W. Birchmore, Camden.	Potter.....	W. J. Breone, Gettysburg.
Lancaster.....	V. A. Lingle, Lancaster.	Roberts.....	Bonnie Andrews, Sisseton.
		Sanborn.....	Nellie Cook, Woonsocket.

VI.—COUNTY SUPERINTENDENTS—Continued.

County.	Superintendent.	County.	Superintendent.
SOUTH DAKOTA—continued.		TENNESSEE—contd.	
Spink.....	Gertrude Fischback, Redfield.	Moore.....	Cora Wiseman, Lynchburg.
Stanley.....	W. W. Warner, Fort Pierre.	Morgan.....	J. N. Johnson, Oakdale.
Sully.....	Jessie L. Livingstone, Onida.	Obion.....	C. L. Riddings, Union City.
Tripp.....	Mary B. Campbell, Winner.	Overton.....	C. C. Gore, jr., Livingston.
Turner.....	Keo King, Parker.	Perry.....	R. H. Gray, Beardstown.
Union.....	Kathryn French, Elk Point.	Pickett.....	B. E. Grace, Byrdstown.
Walworth.....	E. H. Noteboom, Selby.	Polk.....	W. B. Rucker, Benton.
Yankton.....	Theo. Halla, Yankton.	Putnam.....	J. M. Hatfield, Cookeville.
Ziebach.....	G. M. Drummond, Dupree.	Rhea.....	W. E. Stephens, Dayton.
TENNESSEE.		Roane.....	E. B. Booth, Kingston.
Anderson.....	Allan C. Duggins, Clinton.	Robertson.....	O. H. Bernard, Springfield.
Bedford.....	Louis Wilholte, Shelbyville.	Rutherford.....	J. D. Jacobs, Murfreesboro.
Benton.....	M. L. Hardin, Camden.	Scott.....	M. L. McDonald, Huntsville.
Bledsoe.....	John T. Gerren, Pikeville.	Sequatchie.....	W. V. Freiley, Dunlap.
Blount.....	H. B. McCall, Maryville.	Sevier.....	J. R. Keeble, Sevierville.
Bradley.....	H. A. Hibben, Cleveland.	Shelby.....	Mabel Williams, Memphis.
Campbell.....	H. G. Murray, Jacksboro.	Smith.....	J. C. Nichols, Carthage.
Cannon.....	L. E. Summers, Woodbury.	Stewart.....	W. C. Howell, Dover.
Carroll.....	D. T. Barnhill, Huntingdon.	Sullivan.....	J. E. L. Seneker, Blountville.
Carter.....	M. D. Allen, Elizabethton.	Sumner.....	T. W. Hunter, Gallatin.
Cheatham.....	P. H. Duke, Ashland City.	Tipton.....	L. E. Gwinn, Covington.
Chester.....	N. B. Hardeman, Henderson.	Trousdale.....	B. F. Hickman, Hartsville.
Clatsborne.....	Jennie Burkes, Tazewell.	Unicoi.....	Mrs. Lizzie Roberts, Erwin.
Clay.....	R. C. Ledbetter, Willow Grove.	Union.....	H. G. Loy, Maynardville.
Cocke.....	O. L. McMahan, Newport.	Van Buren.....	Mrs. Ella B. Worthington, Spencer.
Coffee.....	J. G. Warden, Manchester.	Warren.....	E. B. Etter, Irving College.
Crockett.....	T. E. Lowery, Alamo.	Washington.....	E. S. Depew, Jonesboro.
Cumberland.....	J. S. Cline, Crossville.	Wayne.....	J. W. Gallien, Waynesboro.
Davidson.....	W. C. Anderson, Nashville.	Weakley.....	Syl Fisher, Sharon.
Decatur.....	G. L. Wortham, Decaturville.	White.....	J. W. McPeak, Sparta.
Dekalb.....	J. F. Caplinger, Smithville.	Williamson.....	Fred J. Page, Franklin.
Dickson.....	R. E. Corlew, Charlotte.	Wilson.....	W. H. Knox, Watertown.
Dyer.....	R. M. Grills, Dyersburg.	TEXAS.	
Fayette.....	D. K. Donnell, Macon.	Anderson.....	Mrs. Lula Sadler, Palestine.
Fentress.....	W. P. Little, Clarkrange.	Andrews ¹	N. P. Ross, Andrews.
Franklin.....	Austin W. Smith, Winchester.	Angelina.....	Wright Dunn, Lufkin.
Gibson.....	J. B. Cummings, Trenton.	Aransas ¹	Roy Jackson, Rockport.
Giles.....	B. H. Gaultney, Pulaski.	Archer ¹	J. S. Melugin, Archer City.
Grainger.....	W. M. Condry, Rutledge.	Armstrong ¹	H. L. Mobley, Claude.
Greene.....	Joel W. Pierce, Balleyton.	Atascosa.....	Ernest Keeling, Jourdanton.
Grundy.....	Jno. T. White, Altamont.	Austin.....	L. H. Baron, Bellville.
Hamblen.....	J. D. Self, Morristown.	Bailey ¹	C. F. Kerr, Dimmitt.
Hamilton.....	James L. Hair, Chattanooga.	Bandera ¹	M. B. Epperson, Bandera.
Hancock.....	L. J. Catron, Sneedville.	Bastrop.....	T. N. Powell, Bastrop.
Hardeman.....	J. D. Turner, Bolivar.	Baylor ¹	T. J. North, Seymour.
Hardin.....	C. A. Lowe, Savannah.	Bee.....	J. A. Risenhoover, Beeville.
Hawkins.....	Fred H. Parvin, Rogersville.	Bell.....	J. S. Morgan, Belton.
Haywood.....	F. R. Ogilvie, Brownsville.	Bexar.....	P. F. Stewart, San Antonio.
Henderson.....	W. H. Dennison, Lexington.	Blanco ¹	Wm. Martiny, Johnson City.
Henry.....	Joe Routon, Paris.	Borden ¹	C. E. Reeder, Gail.
Hickman.....	G. C. Harvill, Centerville.	Bosque.....	A. D. Roach, Meridian.
Houston.....	D. J. McAulay, Erin.	Bowie.....	J. B. Lytal, Boston.
Humphreys.....	G. W. McKeel, Waverly.	Brazoria.....	R. R. Sebring, Angleton.
Jackson.....	J. G. Gaines, Gainesboro.	Brazos.....	T. W. Parker, Bryan.
James.....	J. D. Campbell, Ooltowah.	Brewster ¹	A. M. Turney, Alpine.
Jefferson.....	Chas. H. Bunch, Dandridge.	Briscoe ¹	C. B. Shrewsbury, Silverton.
Johnson.....	J. L. Shoun, Mountain City.	Brooks ¹	J. A. Brooks, Falfurrias.
Knox.....	M. W. Wilson, Knoxville.	Brown.....	Mrs. E. L. Walker, Brownwood.
Lake.....	R. C. Donaldson, Tiptonville.	Burleson.....	T. A. Schoffe, Caldwell.
Lauderdale.....	G. C. McLeod, Ripley.	Burnet ¹	J. R. Smith, Burnet.
Lawrence.....	Napoleon Lumpkin, Lawrenceburg.	Caldwell.....	John N. Gambrell, jr., Lockhart.
Lewis.....	Jno. A. White, Hohenwald.	Calhoun ¹	F. M. Dudgeon, Port Lavaca.
Lincoln.....	Jesse Hardin, Fayetteville.	Callahan.....	S. E. Settle, Baird.
Loudon.....	J. C. McTeer, Loudon.	Cameron.....	J. J. Callanway, Brownsville.
McMinn.....	Alvin Zeigler, Athens.	Camp ¹	H. Y. Black, Pittsburg.
McNairy.....	Aaron Brooks, Selmer.	Carson ¹	A. Callaghan, Panhandle.
Macon.....	H. H. Howser, Red Boiling Springs.	Cass.....	Drew Porter, Linden.
Madison.....	W. A. Malone, Jackson.	Castro ¹	C. F. Kerr, Dimmitt.
Marion.....	A. S. Kelly, Jasper.	Chambers ¹	R. J. McMurrey, Anahuac.
Marshall.....	J. G. Stinson, Lewisburg.	Cherokee.....	Ed. Singletary, Rusk.
Mauzy.....	J. P. Graham, Columbia.	Childress ¹	F. W. Freeman, Childress.
Meigs.....	J. H. Bennett, Decatur.	Clay.....	J. R. Carter, Henrietta.
Monroe.....	J. C. Kimbrough, Madisonville.	Coke ¹	S. B. Kemp, Robert Lee.
Montgomery.....	Elliott Buckner, Clarksville.	Coleman.....	J. C. Griffen, Coleman.
		Colin.....	W. E. Foster, McKinney.

¹ County judge is ex officio county superintendent.

VI.—COUNTY SUPERINTENDENTS—Continued.

County.	Superintendent.	County.	Superintendent.
TEXAS—continued.		TEXAS—continued.	
Collingsworth ¹	Brandon Trussell, Wellington.	Jefferson.....	Homer C. Daniel, Beaumont.
Colorado.....	C. K. Quin, Columbus.	Jim Hogg.....	A. M. Brumfield, Hebbronville.
Comal ¹	Adolf Stein, New Braunfels.	Jim Wells ¹	W. R. Perkins, Alice.
Comanche.....	W. D. Jenkins, Comanche.	Johnson.....	W. J. Carrell, Cleburne.
Concho ¹	James E. Howse, Paint Rock.	Jones.....	L. T. Cunningham, Anson.
Cooke.....	E. N. Blackburn, Gainesville.	Karnes.....	Pearl Bowden, Karnes City.
Coryell.....	J. C. McKelvy, Gatesville.	Kaufman.....	J. B. Weaver, Kaufman.
Cottle ¹	W. O. Jones, Paducah.	Kendall ¹	J. W. Lawhon, Boerne.
Crockett ¹	C. E. Davidson, Ozona.	Kent ¹	B. L. Glenn, Clairemont.
Crosby ¹	Pink L. Parrish, Crosbyton.	Kerr ¹	Lee Wallace, Kerrville.
Culberson ¹	J. C. Hunter, Van Horn.	Kimble ¹	J. B. Randolph, Junction City.
Dallam ¹	T. S. Mills, Dalhart.	King ¹	Jas. H. Lynn, Guthrie.
Dallas.....	Thos. E. Henry, Dallas.	Kinney ¹	Joseph Veltman, Brackettville.
Dawson ¹	Geo. W. Foster, Lamesa.	Kleburg.....	Ben F. Wilson, Kingsville.
Deaf Smith ¹	J. M. Hughes, Hereford.	Knox ¹	J. H. Millam, Benjamin.
Delta.....	W. E. Chancellor, Cooper.	Lamar.....	W. H. Snow, Paris.
Denton.....	L. H. Edwards, Denton.	Lamb ¹	C. H. Curl, Olton.
De Witt.....	L. G. Covey, Cuero.	Lampasas ¹	M. M. White, Lampasas.
Dickens ¹	Blaine Spur, Dickens.	La Salle ¹	C. C. Thomas, Cotulla.
Dimmitt ¹	J. O. Reuse, Carrizo Springs.	Lavaca.....	William Eilers, Hallettsville.
Donley ¹	J. C. Killough, Clarendon.	Lee.....	C. M. Bishop, Giddings.
Duval ¹	A. W. Tobin, San Diego.	Leon.....	J. M. Henderson, Centerville.
Eastland.....	R. E. Sikes, Eastland.	Liberty ¹	I. B. Simmons, Liberty.
Ector ¹	E. V. Graham, Odessa.	Limestone.....	J. R. Atkins, Groesbeck.
Edwards ¹	A. P. Allison, Rock Springs.	Lipscomb ¹	P. B. Mills, Lipscomb.
Ellis.....	W. S. Ely, Waxahachie.	Live Oak ¹	F. H. Church, Oakville.
El Paso.....	Myra Winkler, El Paso.	Llano ¹	A. H. Wilbern, Llano.
Erath.....	W. T. Graves, Stephenville.	Loving ¹	Howell Johnson, Pecos.
Falls.....	G. A. Pringle, Marlin.	Lubbock ¹	E. R. Haynes, Lubbock.
Fannin.....	R. M. Parker, Bonham.	Lynn ¹	J. L. Stokes, Tahoka.
Fayette.....	G. A. Stierling, La Grange.	Madison ¹	W. W. Sharp, Madisonville.
Fisher.....	W. C. Martin, Roby.	Marion.....	Alice Emmert, Jefferson.
Floyd ¹	E. P. Thompson, Floydada.	Martin ¹	A. C. Eidson, Stanton.
Foard ¹	G. W. Walthall, Crowell.	Mason ¹	Glenn W. Smith, Mason.
Fort Bend.....	Herman Beyer, Richmond.	Matagorda.....	W. C. Gray, Bay City.
Franklin ¹	O. L. Reaves, Mount Vernon.	Maverick ¹	Ben V. King, Eagle Pass.
Freestone.....	W. F. Richardson, Fairfield.	McCulloch.....	E. L. White, Brady.
Frio ¹	S. T. Dowe, Pearsall.	McLennan.....	R. L. Abbott, Waco.
Gaines ¹	W. R. Slaton, Seminole.	McMullen ¹	L. W. Hill, Tilden.
Galveston.....	J. M. Fendley, Galveston.	Medina.....	W. N. Saathoff, Hondo.
Garza ¹	J. M. Boren, Post City.	Menard ¹	J. D. Scruggs, Menard.
Gillespie ¹	Max Blum, Fredericksburg.	Midland ¹	J. F. Chadwick, Midland.
Glasscock ¹	C. W. Cunningham, Garden City.	Milam.....	Frank J. Clement, Cameron.
Goliad ¹	H. J. Passmore, Goliad.	Mills ¹	G. H. Dalton, Goldthwaite.
Gonzales.....	J. C. Cochran, Gonzales.	Mitchell ¹	J. H. Bullock, Colorado.
Gray ¹	Siler Faulkner, Lefors.	Montague.....	W. W. Snodgrass, Montague.
Grayson.....	J. A. Giles, Sherman.	Montgomery.....	J. T. Terry, Conroe.
Gregg.....	Walter E. Jones, Longview.	Moore ¹	J. W. Fox, Dumas.
Grimes.....	J. C. Crutchfield, Anderson.	Morris ¹	J. H. French, Danglerfield.
Guadalupe.....	J. B. Williams, Seguin.	Motley ¹	C. B. Whitten, Matador.
Hale ¹	Wm. B. Lewis, Plainview.	Nacogdoches.....	G. A. Baker, Nacogdoches.
Hall ¹	S. G. Alexander, Memphis.	Navarro.....	J. B. Davis, Corsicana.
Hamilton.....	R. P. Edgar, Hamilton.	Newton ¹	J. B. Stripling, Newton.
Hansford ¹	S. B. Hale, Hansford.	Nolan ¹	J. L. Ross, Sweetwater.
Hardeman ¹	D. E. Magee, Quanah.	Nueces.....	Nat Benton, Corpus Christi.
Hardin.....	R. P. Gibbs, Kountze.	Ochiltree ¹	R. T. Carrell, Ochiltree.
Harris.....	L. L. Pugh, Houston.	Oldham ¹	T. B. Jones, Tascosa.
Harrison.....	J. W. Cypress, Marshall.	Orange ¹	F. D. Bland, Orange.
Hartley ¹	J. H. Phillips, Channing.	Palo Pinto.....	A. F. Jones, Palo Pinto.
Haskell.....	T. C. Williams, Haskell.	Panola.....	C. L. Beason, Carthage.
Hays.....	John H. Saunders, San Marcos.	Parker.....	W. V. Shadle, Weatherford.
Hemphill.....	J. L. Jennings, Canadian.	Parmer ¹	James D. Hamlin, Farwell.
Henderson.....	W. S. Harris, Athens.	Pecos ¹	Howell Johnson, Fort Stockton.
Hidalgo.....	J. S. Bunn, Edinburg.	Polk.....	J. H. Taylor, Livingston.
Hill.....	Leon Culberson, Hillsboro.	Potter ¹	F. W. McBride, Amarillo.
Hockley ¹	E. R. Haynes, Lubbock.	Presidio ¹	H. H. Kilpatrick, Marfa.
Hood ¹	W. L. Dean, Granbury.	Rains ¹	J. B. Allred, Emory.
Hopkins.....	John Hurley, Sulphur Springs.	Randall ¹	C. E. Coss, Canyon.
Houston.....	Jno. N. Snel, Crockett.	Reagan ¹	W. B. Moore, Stiles.
Howard ¹	S. E. Penix, Big Springs.	Real.....	W. H. Carr, Leakey.
Hunt.....	W. H. Ibbotson, Greenville.	Red River.....	S. E. Clark, Clarksville.
Hutchison ¹	Ben H. Wickware, Plemmons.	Reeves ¹	Ben Randals, Pecos.
Irion ¹	W. F. Fokes, Sherwood.	Refugio ¹	Leslie Adkins, Refugio.
Jack.....	C. C. Bock, Jacksboro.	Roberts ¹	J. E. Kinney, Miami.
Jackson ¹	J. W. Bagby, Edna.	Robertson.....	H. A. Bush, Franklin.
Jasper.....	A. D. Rawlinson, Jasper.	Rockwall ¹	J. W. Reese, Rockwall.
Jed Davis ¹	J. P. Weatherby, Fort Davis.		

¹ County judge is ex officio county superintendent.

VI. COUNTY SUPERINTENDENTS—Continued.

County.	Superintendent.	County.	Superintendent.
TEXAS—continued.		UTAH—continued.	
Runnels.....	W. W. Wooten, Ballinger.	Sanpete.....	A. J. Reese, Wales.
Rusk.....	J. T. Watson, Henderson.	Sevier.....	Earl Thompson, Richfield.
Sabine ¹	J. B. Lewis, Hemphill.	Summit.....	J. L. Kearns, Park City.
San Augustine ¹	Lillie Hazle, San Augustine.	Tooele.....	John U. Hicks, Grantsville.
San Jacinto ¹	Wm. McMurrey, Cold Springs.	Uinta.....	N. G. Sowards, Vernal.
San Patricio ¹	M. A. Childress, Sinton.	Utah.....	J. Preston Creer, Spanish Fork.
San Saba ¹	Dor W. Brown, San Saba.	Wasatch.....	D. A. Broadbent, Heber City.
Schleicher ¹	Geo. M. Brown, Eldorado.	Washington.....	Charles B. Petty, Hurricane.
Scurry ¹	C. R. Buchanan, Snyder.	Wayne.....	Ann Snow, Teasdale.
Shackelford ¹	J. A. King, Albany.	Weber.....	W. N. Petterson, Ogden.
Shelby.....	J. B. Hammer, Center.	WASHINGTON.	
Sherman ¹	C. H. Rowland, Stratford.	Adams.....	Mrs. C. F. Brown, Ritzville.
Smith.....	A. W. Orr, Tyler.	Asotin.....	W. J. Jerome, Asotin.
Somervell ¹	J. W. Childress, Glen Rose.	Benton.....	Wata J. Jones, Prosser.
Starr.....	Sam P. Vale, Rio Grande City.	Chehalis.....	J. W. Hodge, Montesano.
Stephens ¹	Jesse R. Smith, Breckinridge.	Chelan.....	Violetta H. Guthrie, Wenatchee.
Sterling ¹	B. F. Brown, Sterling City.	Clallam.....	Thomas Geisness, Port Angeles.
Stonewall ¹	T. R. Webb, Aspermont.	Clarke.....	Mrs. Elizabeth C. Sterling, Vancouver.
Sutton ¹	E. S. Briant, Sonora.	Columbia.....	Mrs. Maud L. Tucker, Dayton.
Swisher ¹	W. S. Tomlinson, Tulla.	Cowlitz.....	Lucia Jenkins, Kalama.
Tarrant.....	G. T. Bludworth, Fort Worth.	Douglas.....	L. L. Sellers, Waterville.
Taylor.....	J. S. Smith, Abilene.	Ferry.....	E. D. Houghland, Republic.
Terrell ¹	J. B. Ross, Sanderson.	Franklin.....	Geo. W. Zent, Pasco.
Terry ¹	George W. Neill, Brownfield.	Garfield.....	Mrs. M. E. Liggett, Pomeroy.
Throckmorton ¹	B. F. Thorp, Throckmorton.	Grant.....	R. L. Blackburn, Ephrata.
Titus.....	Jno. Myers, Mount Pleasant.	Island.....	Lena Kohne, Coupeville.
Tom Green ²	E. M. Davis, San Angelo.	Jefferson.....	Edith Delanty, Port Townsend.
Travis.....	Maud M. Douglas, Austin.	King.....	M. E. Durham, Seattle.
Trinity.....	W. B. Mills, Groveton.	Kitsap.....	H. W. Elliott, Port Orchard.
Tyler.....	Grover C. Lowe, Woodville.	Kittitas.....	Mrs. Mary A. Boedcher, Ellensburg.
Upshur.....	A. L. Bradfield, Gilmer.	Kilckitlat.....	T. C. Anderson, Goldendale.
Upton ¹	L. W. Ainsworth, Upland.	Lewis.....	M. L. Carrier, Chehalis.
Uvalde ¹	James Matthews, Uvalde.	Lincoln.....	Wm. U. Neeley, Davenport.
Valverde.....	Eva Strickland, Del Rio.	Mason.....	H. E. Loop, Shelton.
Van Zandt.....	G. D. Staton, Canton.	Okanogan.....	W. E. Gamble, Conconully.
Victoria.....	J. C. Thomas, Victoria.	Pacific.....	Angus Jack, South Bend.
Walker.....	C. A. Bennick, Huntsville.	Pend Oreille.....	Hester C. Soules, Newport.
Waller.....	T. A. Kelley, Hempstead.	Pierce.....	L. L. Benbow, Tacoma.
Ward ¹	Burch Carson, Barstow.	San Juan.....	W. R. Nichols, Friday Harbor.
Washington.....	W. F. A. Boemer, Brenham.	Skagit.....	O. H. Kerns, Mount Vernon.
Webb.....	B. Richardson, Laredo.	Skamania.....	Mrs. Blanche Williams, Stevenson.
Wharton.....	Oswald Garrett, Wharton.	Snohomish.....	Mrs. Lizzie Jones, Everett.
Wheeler ¹	M. M. Miller, Wheeler.	Spokane.....	E. G. McFarland, Spokane.
Wichita.....	R. M. Johnson, Wichita Falls.	Stevens.....	Martha A. Boardman, Colville.
Wilbarger.....	L. A. Hallar, Vernon.	Thurston.....	L. A. Kibbe, Olympia.
Willacy.....	Avery T. Searle, Sarita.	Wahkiakum.....	W. W. Head, Cathlamet.
Williamson.....	Joe A. Hudson, Georgetown.	Walla Walla.....	Paul Johnson, Walla Walla.
Wilson.....	J. E. Swift, Floresville.	Whatcom.....	Della L. Keeler, Bellingham.
Winkler ¹	W. E. Baird, Kermit.	Whitman.....	Daisy Busbey, Colfax.
Wise.....	Brandon Trussell, Decatur.	Yakima.....	Rodney Ackley, North Yakima.
Wood.....	T. O. Craddock, Quitman.	WEST VIRGINIA.	
Yoakum ¹	J. T. Gainer, Plains.	Barbour.....	Cleophas Marsh, Philippi.
Young.....	B. W. King, Graham.	Berkeley.....	E. N. Zeller, Inwood.
Zapata ¹	A. P. Spohn, Zapata.	Boone.....	W. W. Nelson, Turtle Creek.
Zavala ¹	O. A. Stubbs, Batesville.	Braxton.....	W. B. Golden, Flatwoods.
UTAH.		Brooke.....	Chas. E. Potter, Wellsburg.
Beaver.....	R. H. Barton, Beaver.	Cabell.....	J. C. Petit, Ona.
Boxelder.....	D. C. Jensen, Brigham City.	Calhoun.....	W. Chenoweth, Grantsville.
Cache.....	R. V. Larson, Logan.	Clay.....	J. F. Wilson, Clay.
Carbon.....	C. R. Marcusen, Price.	Doddridge.....	L. L. Sadler, West Union.
Davis.....	H. C. Burton, Farmington.	Fayette.....	J. T. Peters, Dothan.
Emery.....	M. J. Blackburn, Huntington.	Gilmer.....	J. E. Hays, Glenville.
Garfield.....	F. G. Gardiner, Panguitch.	Grant.....	H. F. Groves, Petersburg.
Grand.....	C. A. Johnson, Moab.	Greenbrier.....	Chas. Tabscott, Richlands.
Iron.....	Parley Dalley, Cedar City.	Hampshire.....	Ira V. Cowgill, Romney.
Juab.....	Geo. A. Sperry, Nephi.	Hancock.....	H. O. Miller, Pughtown.
Kane.....	D. D. Rust, Kanab.	Hardy.....	L. S. Halterman, Lost River.
Millard.....	D. F. Petersen, Hinckley.	Harrison.....	A. P. Morrison, Clarksburg.
Morgan.....	C. M. Croft, Morgan.		
Plute.....	D. H. Robinson, Junction.		
Rich.....	John Benson, Randolph.		
Salt Lake:			
Granite district..	C. H. Skidmore, Salt Lake City.		
Jordan district...	Orson Ryan, Midvale.		
San Juan.....	J. B. Harris, Grayson.		

¹ County judge is ex officio county superintendent.

VI —COUNTY SUPERINTENDENTS—Continued.

County.	Superintendent.	County.	Superintendent.
WEST VIRGINIA—continued.		WISCONSIN—contd.	
Jackson.....	P. H. Rardin, Ripley.	Jefferson.....	A. J. Thorne, Jefferson.
Jefferson.....	J. Grantham, Kearneysville.	Juneau.....	Myrta D. Cuenot, Mauston.
Kanawha.....	N. W. Cavender, Charleston.	Kenosha.....	J. J. Kerwin, Silver Lake.
Lewis.....	M. L. B. Linger, Weston.	Kewaunee.....	Chas. F. Teske, Kewaunee.
Lincoln.....	Henry F. White, Easy.	La Crosse.....	B. F. Oltman, West Salem.
Logan.....	L. E. Browning, Logan.	Lafayette.....	W. W. Woolworth, Darlington.
Marion.....	W. M. Kennedy, Fairmont.	Langlade.....	A. M. Arveson, Antigo.
Marshall.....	H. W. McDowell, Glen Easton.	Lincoln.....	J. H. Hamlin, Merrill.
Mason.....	C. D. Ball, Point Pleasant.	Manitowoc.....	C. W. Melnest, Manitowoc.
Mercer.....	J. F. Holroyd, Athens.	Marathon.....	Wenzel Pivernetz, Waupun.
Mineral.....	R. W. Thrush, Keyser.	Marquette.....	Mrs. A. E. Schwittay, Marinette.
Mingo.....	Hi Maynard, Myrtle.	Milwaukee.....	Duncan H. Reid, Endeavor.
Monongalia.....	H. E. Brookover, Morgan.	Monroe.....	Paul W. Huth, Milwaukee.
Monroe.....	W	Oconto.....	M. M. Haney, Sparta.
Morgan.....	A	Oneida.....	Ellen B. McDonald, Oconto.
McDowell.....	W	Outagamie.....	F. A. Lowell, Rhinelander.
Nicholas.....	H	Ozaukee.....	A. G. Meating, Appleton.
Ohio.....	J.	Pepin.....	R. F. Beger, Fredonia.
Pendleton.....	F	Pierce.....	Cynthia Carlisle, Durand.
Pleasants.....	G	Polk.....	H. B. Austerud Ellsworth.
Pocahontas.....	B	Portage.....	Martin Stenerson, Balsam Lake.
Preston.....	W	Price.....	Frances C. Bannoch, Stevens Point.
Putnam.....	J.	Racine.....	May McNely, Phillips.
Raleigh.....	U	Richland.....	G. J. Zimmerman, Union Grove.
Randolph.....	W	Rock.....	Jacob B. Logue, Richland Center.
Ritchie.....	R	Rusk.....	O. D. Antidel, Janesville.
Roane.....	A	St. Croix.....	Oliver E. Rice, Ladysmith.
Summers.....	W	Sauk.....	H. A. Aune, Baldwin.
Taylor.....	D	Sawyer.....	Geo. W. Davies, N Freedom.
Tucker.....	C	Shawano.....	I
Tyler.....	A. L. Gregg, Middlebourne.	Sheboygan.....	I
Upshur.....	J. H. Ashworth, Buckhannon.	Taylor.....	I
Wayne.....	O. J. Rife, Wayne.	Trempealeau.....	I
Webster.....	G. R. Morton, Lanes Bottom.	Vernon.....	I
Wetzel.....	Chas. Kisligh, New Martinsville.	Vilas.....	I
Wirt.....	Ross Wilson, Elizabeth.	Walworth.....	I
Wood.....	E. B. Sims, Williamstown.	Washburn.....	I
Wyoming.....	C. H. Cook, Pineville.	Washington.....	I
WISCONSIN.		Waukesha.....	I
Adams.....	Florence Billings, Arkdale.	Waupaca.....	I
Ashland.....	W. P. Hagman, Meilen.	Waushara.....	I
Barron.....	L. S. Cheney, Barron.	Winnebago.....	I
Bayfield.....	Jessie N. Smith, Washburn.	Wood.....	I
Brown.....	J. P. Novitaki, Green Bay.		
Buffalo.....	H. J. Niehaus, Alma.	WYOMING	
Burnett.....	Jessie Wedin, Grantsburg.	Albany.....	Mrs. N. Artisee Erickson, Laramie.
Calumet.....	L. P. Fox, Chilton.	Big Horn.....	A. F. Fillerup, Basin.
Chippewa.....	Bertha Trudelle, Chippewa Falls.	Campbell.....	Josephine Anderson, Gillette.
Clark.....	Elizabeth Kennedy, Neillsville.	Carbon.....	Frances B. Smith, Rawlins.
Columbia.....	C. W. Smith, Portage.	Converse.....	Maud Dawes, Douglas.
Crawford.....	George Burton, Eastman.	Crook.....	Mrs. Morna E. Wood, Sundance.
Dane, 1st district.....	S. Ames, Stoughton.	Fremont.....	Mrs. Ella Farthing, Lander.
Dane, 2d district.....	Matthew Barkley, Mount Horeb.	Goshen.....	C. O. Downing, Torrington.
Dodge.....	John Kelley, Juneau.	Hot Springs.....	Mrs. Nellie L. Wales, Thermopolis.
Door.....	Millard Tufts, Sturgeon Bay.	Johnson.....	Mrs. M. B. Sinsel, Buffalo.
Douglas.....	Olga Larsen, Superior.	Laramie.....	Mrs. M. E. Heffernon, Cheyenne.
Dunn.....	Dona A. Taylor, Menomonie.	Lincoln.....	Mrs. Margaret Nicholson, Kemmerer.
Eau Claire.....	Theresa A. Leinenkugel, Eau Claire.	Natrona.....	May Hamilton, Casper.
Florence.....	L. A. Jones, Florence.	Niobrara.....	Charles Browning, Lusk.
Fond du Lac.....	Julia Ryder, Fond du Lac.	Park.....	Jennie McGuffey, Cody.
Forest.....	George W. Weldon, Laona.	Platte.....	Mary Maloney, Wheatland.
Grant.....	E. C. Brick, Lancaster.	Sweetwater.....	Ruth Jones, Green River.
Green.....	John N. Burns, Monroe.	Uinta.....	Mrs. Iva Thomas-Irish, Evans-ton.
Green Lake.....	George V. Kelley, Princeton.	Washakie.....	Mary E. Hatfield, Worland.
Iowa.....	Jesse A. Van Natta, Dodgeville.	Wheaton.....	Orliss Carpenter, Newcastle.
Iron.....	Charles D. Lennon, Hurley.		
Jackson.....	Mrs. Norma R. McNab, Taylor.		

VII.—DIVISION, TOWNSHIP, AND DISTRICT SUPERINTENDENTS.

ALASKA.

District.	Superintendent (schools for natives).	District.	Superintendent (schools for natives).
Northwestern.....	Walter C. Shields, Nome.	Upper Yukon.....	George E. Boulter, Tanana.
Do	Walter H. Johnson (assistant), Nome.	Southwestern.....	Henry O. Schaleben, Seward.
Western.....	Andrew N. Evans, Unalakleet.	Southeastern.....	William G. Beattie, Juneau.

CONNECTICUT.¹

Towns.	Supervisor.	Towns.	Supervisor.
Ashford, Eastford, Ledyard, Woodstock.	F. W. Barber, Putnam.	Cornwall, North Canaan, Sharon, Warren.	E. B. Stone, Canaan.
Avon, Farmington.	L. S. Mills, Plainville.	Coventry, Hebron, Salem.	J. A. Young, Colchester.
Barkhamsted, Colebrook, Hartland.	W. H. Bliss, Winsted.	Durham.....	W. P. Holman, Durham.
Beacon Falls, Oxford, Prospect, Wolcott.	W. H. Holmes, Waterbury.	East Lyme, Montville, Waterford.	C. E. Wheeler, New London.
Berlin, Canterbury, Hampton.	J. W. Dows, New Haven.	Easton, Trumbull, Weston, Wilton.	D. Albert Green, Norwalk.
Bethany, Cheshire, Madison, North Branford, North Haven.	D. C. Allen, Montowese.	Essex, Saybrook... Franklin, Mansfield, Pomfret.	H. O. Clough, Deep River.
Bethlehem.....	J. W. Halliwell, Watertown.	Goshen, Harwinton, Middlebury, New Hartford.	F. W. Clapp, Willimantic.
Bloomfield, Burlington, East Granby, Granby.	F. L. Tapley, Hartford.	Haddam, Killingworth, Lyme, Old Lyme.	H. E. Chittenden, Torrington.
Bolton, Ellington, Somers.	A. N. Potter, Willimantic.	Lisbon, Sprague, Sterling, Voluntown.	F. W. Shearer, Lyme.
Bozrah, Columbia, Lebanon, Tolland, Willington.	L. T. Garrison, Willimantic.	Morris, Roxbury, Southbury, Woodbury.	A. L. Young, Norwich.
Bridgewater, Kent, Sherman, Washington.	L. K. Chance, New Milford.	Newington.....	E. S. Boyd, Woodbury.
Brookfield, New Fairfield, Redding, Ridgefield.	O. E. Lowell, Danbury.	North Stonington..	C. E. Pratt, New Britain.
Canaan, Salisbury..	C. L. Warner, Salisbury.	Portland, Rocky Hill, Wethersfield.	W. W. Evans, New Haven.
Canton, Chester....	W. S. Dakin, Hartford.	Suffield.....	W. E. Parker, Portland.
Chatham, Cromwell, Marlboro, Middlefield.	J. F. Conolly, Middletown.		N. S. Liht, Suffield.

¹ For other superintendents of Connecticut see p. 13.MAINE.¹

District superintendency.	Superintendent.	District superintendency.	Superintendent.
Abbot, Blanchard, Guilford, Monson Willimantic.	H. M. Pullen, Monson.	Athens, Cornville, Harmony, Solon.	Herbert W. Wood, Athens.
Addison, Jonesboro, Jonesport.	D. Herman Corson, Jonesport.	Baileysville, Calais.	J. M. Pike, Calais.
Alfred, Sanford.....	Isaac A. Smith, Sanford.	Bancroft, Danforth, Orient, Reed Plan, Weston.	John F. Philbrook, Danforth.
Anson, Embden, Lexington, New Portland.	John W. Foster, North Anson.	Beddington, Cherryfield, Columbia Falls, Deblois.	Mrs. Frances C. Jewett, Cherryfield.
Argyle, Bradley, Greenbush, Milford, Passadumkeag.	Gertrude E. Gifford, Passadumkeag.	Belfast, Searsport..	W. B. Woodbury, Belfast.
Ashland, Garfield, Masardis, Nashville, Portage Lake.	W. H. Russell, Ashland.	Belgrade, Mount Vernon, Readfield.	T. W. McQuaide, Mount Vernon.
		Benton, Winslow..	Chester A. Grant, Winslow.
		Berwick, Lebanon.	W. M. Bottomley, Berwick.
		Bethel, Greenwood.	E. F. Callahan, Bethel.

¹ For other superintendents of Maine, see p. 19.

VII.—DIVISION, TOWNSHIP, AND DISTRICT SUPERINTENDENTS—Continued.

MAINE—Continued.

District superintendency.	Superintendent.	District superintendency.	Superintendent.
Blaine, Bridgewater, Mars Hill.	C. A. Record, Mars Hill.	East Millinocket, Millinocket, Mount Chase, Patten.	W. M. Marr, Patten.
Bluehill, Brooklin, Sedgwick.	Thomas S. Grindle, Bluehill.	Easton, Fort Fairfield.	F. E. McGouldrick, Fort Fairfield.
Boothbay, Boothbay Harbor.	H. I. Smith, Boothbay Harbor.	Eastport, Lubec...	W. H. Sturtevant, Eastport.
Bowdoin, Litchfield, Wales.	H. B. Arey, Litchfield Corner.	Eddington, Holden, Orrington.	E. E. Roderick, South Orrington.
Bowdoinham, Richmond.	E. R. Bowdoin, Richmond.	Eden, Hancock....	E. L. Palmer, Bar Harbor.
Bradford, Charleston, Corinth.	John S. Tapley, Charleston.	Ellot, South Berwick.	F. W. Freeman, South Berwick.
Kenduskeag.		Fairfield, Oakland.	W. O. Hersey, Fairfield.
Brewer, Hampden, Veazie.	F. W. Burrill, Brewer.	Farmingdale, Gardiner.	H. J. Chase, Gardiner.
Bridgton, Harrison.	F. E. Russell, Bridgton.	Farmington, Wilton.	R. L. West, Farmington.
Brooksville, Castine, Penobscot.	W. E. Clark, Castine.	Fort Kent, New Canada, St. Francis, St. John, Wallagrass.	Jos. F. Cyr, Fort Kent.
Brownville, Milo...	W. S. Adams, Milo.	Frankfort, Monroe, Winterport.	F. W. Nickerson, Monroe.
Brunswick, Topsham.	John A. Cone, Brunswick.	Freeport, Yarmouth.	Clifton E. Wass, Freeport.
Buckfield, Hartford, Hebron.	Florent Whitmore, Buckfield.	Gorham, Westbrook.	Prescott Keyes, Westbrook.
Burnham, Canaan, Clinton.	C. L. Clement, Clinton.	Gouldsboro, Sorrenton, Sullivan, Winter Harbor.	A. W. Gordon, West Gouldsboro.
Buxton, Standish..	Fred Benson, Buxton Center.	Grand Isle, Madawaska, St. Agatha.	B. S. Dufour, St. Agatha.
Camden, Matinkus, Thomaston.	B. E. Packard, Camden.	Greenville, Jackman, Moose, River, Sangerville.	Russell S. Taylor, Sangerville.
Canton, Turner....	L. W. Blaisdell, Turner.	Hallowell, Winthrop.	Chas. H. Abbott, Hallowell.
Cape Elizabeth, South Portland.	Simon M. Hamlin, South Portland.	Hanover, Rumford.	W. H. S. Ellingwood, Rumford.
Caratunk, Concord, Moscow, The Forks, West Fork.	Chas. E. Ball, Bingham.	Hartland, Palmyra, St. Albans.	H. E. Fortier, Hartland.
Caribou, Limestone.	R. J. Libby, Caribou.	Hodgdon, Houlton.	L. W. Robbins, Houlton.
Castle Hill, Mapleton, Wade, Washburn.	R. L. Sinclair, Washburn.	Kennebunk, Kennebunkport.	J. W. Lambert, Kennebunk.
Chapman, Presque Isle.	W. O. Chase, Presque Isle.	Lisbon, Webster...	A. B. Lord, Lisbon Falls.
Chester, Kingman, Macwahoc, Mattawamkeag, Prentiss.	H. R. Houston, Mattawamkeag.	Madison, Skowhegan.	L. W. Gerrish, Skowhegan.
China, Vassalboro..	Geo. E. Paine, East Vassalboro.	Mount Desert, Southwest Harbor, Tremont.	L. E. Williams, Southwest Harbor.
Columbia, Harrington, Milbridge, Steuben.	Geo. M. D. Grant, Milbridge.	New Sweden, Stockholm, Woodland.	S. M. Nieveen, New Sweden.
Corinna, Newport, Plymouth.	W. C. McCue, Newport.	Norway, Waterford.	T. C. Morrill, Norway.
Cornish, Parsonsfield, Porter.	L. M. Felch, Cornish.	Paris, Woodstock..	B. F. Jones, South Paris.
Crystal, Island Falls, Sherman.	Geo. C. Hight, Island Falls.	Oldtown, Orono....	Wm. D. Fuller, Oldtown.
Cumberland, Falmouth, North Yarmouth.	D. W. Lunt, Portland, Route 4.	Raymond, Windham.	A. H. Carvill, North Windham.
Damariscotta, Newcastle.	H. K. White, Newcastle.	Rockland, Rockport.	G. A. Stuart, Rockland.
Deer Isle, Stonington.	D. W. Rollins, Deer Isle.	Swans Island, Vinalhaven.	H. E. Bowman, Vinalhaven.
Dexter, Garland...	L. A. Ross, Dexter.	Union, Warren.....	W. M. Teague, Warren.
Dixfield, Mexico...	W. S. McNamara, Ridlonville.		
Dover, Foxcroft...	Jas. N. Emery, Foxcroft.		
East Livermore, Wayne.	Elmer Webber, Livermore Falls.		
East Machias, Machias, Machiasport.	John C. Merrill, East Machias.		

VII.—DIVISION, TOWNSHIP, AND DISTRICT SUPERINTENDENTS—Continued.

MASSACHUSETTS.¹

Superintendency.	Superintendent.	Superintendency.	Superintendent.
Acton, Carlisle, Littleton, Westford.	Frank H. Hill, Littleton.	Dalton.....	Herbert L. Allen, Dalton.
Alford, Egremont, Richmond, West Stockbridge.	Theodore W. King, West Stockbridge.	Dana, Greenwich, New Salem, Prescott.	Charles L. Clay, North Dana.
Ashby, Lunenburg, Townsend.	Herman C. Knight, Townsend.	Dover, Sudbury, Wayland.	Frank H. Benedict, Cochrasset.
Ashfield, Cumington, Goshen, Plainfield.	Robert W. Martin, Ashfield.	Dracut, North Reading, Tewksbury, Tyngsborough, Wilmington.	Charles L. Randall, Lowell.
Ashland, Hopkinton.	W. K. Putney, Ashland.	Duxbury, Marshfield, Scituate.	W. E. Chaffin, Egypt.
Auburn, Sutton....	Osmon C. Evans, Worcester.	East Bridgewater, West Bridgewater.	Edgar H. Grout, East Bridgewater.
Ayer, Boylston, Shirley, West Boylston.	Frank C. Johnson, Ayer.	East Longmeadow, Hampden, Longmeadow, Wilbraham.	Mary L. Poland, Springfield.
Barre, Hardwick, Petersham.	Clarence L. Judkins, Barre.	Erving, Leverett, Shutesbury, Wendell.	Mrs. Cora A. Stearns, Wendell Depot.
Becket, Chester, Middlefield.	William H. Sanderson, Chester.	Essex, Lynnfield, Middleton, Topsfield, Wenham.	Harvey R. Williams, Wenham.
Bedford, Belmont, Burlington.	George P. Armstrong, Belmont.	Falmouth.....	Carl Holman, Falmouth.
Belchertown, Enfield.	Alvin R. Lewis, Belchertown.	Foxboro, Norton, Plainville.	Ira A. Jenkins, Foxboro.
Bellingham, Hopedale, Mendon.	Francello G. Atwell, Hopedale.	Freetown, Westport.	William H. Millington, Fall River.
Berkley, Dighton, Rehoboth.	Mortimer H. Bowman, Dighton.	Gill, Leyden, Northfield, Warwick.	Elmer F. Howard, East Northfield.
Berlin, Northboro, Shrewsbury, Southboro.	Frederick B. Van Ornum, Northboro.	Granville, Sandisfield, Southwick, Tolland.	Josiah S. McCann, Granville.
Bernardstown, Hadley, Hatfield.	Clinton J. Richards, Northampton.	Groton, Hamilton..	Eldridge Smith, Groton.
Blanford, Huntington, Montgomery, Russell.	Leon O. Merrill, Huntington.	Halifax, Kingston, Pembroke, Plympton.	Everett G. Loring, Kingston.
Bolton, Dunstable, Harvard, Pepperell.	Austin R. Paull, Pepperell.	Hanover, Hanson, Norwell.	James S. Hayes, Rockland.
Bourne, Mashpee, Sandwich.	Herbert L. Whitman, Buzzards Bay.	Hinsdale, Peru, Washington, Windsor.	Harry E. Gardner, Hinsdale.
Boxford, Georgetown, Groveland, Rowley..	Gaius B. Frost, Georgetown.	Holden, Oakham, Paxton, Rutland.	Robert I. Bramhall, Holden.
Brewster, Dennis, Yarmouth.	L. Thomas Hopkins, Yarmouth Port.	Holliston, Medway, Sherborn.	Carroll H. Drown, West Medway.
Brookfield, North Brookfield.	Henry H. Pratt, North Brookfield.	Hubbardston, Philipston, Royals-ton, Templeton.	Asa M. Jones, Baldwinville.
Buckland, Colrain, Shelburne.	Arthur W. Smith, Shelburne Falls.	Lancaster.....	A. S. Rollins, Lancaster.
Carver, Lakeville, Raynham, Rochester.	Chester W. Humphrey, Rochester.	Lenox.....	Charles A. Tucker, Lenox.
Charlemont, Hawley, Heath, Rowe.	Leon E. Prior, Charlemont.	Manchester.....	John C. Mackin, Manchester.
Charlton, Leicester.	Charles C. Richardson, Leicester.	Medfield, Millis, Norfolk, Westwood.	Melvin J. West, Mills.
Chatham, Eastham, Harwich, Orleans.	Loring G. Williams, Harwich.	Merrimac, Newbury, Salisbury, West Newbury.	Alberto W. Small, Newburyport.
Cheshire, Hancock, Lanesboro, New Ashford.	George B. Clarke, Lanesboro.	Mount Washington, New Marlboro, Sheffield.	Alfred O. Tower, Sheffield.
Chesterfield, Williamsburg, Worthington.	Elbridge W. Goodhue, Haydenville.	Nahant.....	J. D. W. Chester, Nahant.
Chilmark, Edgartown, Gay Head, Oak Bluffs, Tisbury, West Tisbury.	Charles A. Crowell, jr., Vineyard Haven.	Nantucket.....	Edwin S. Tirrell, Nantucket.
Clarksburg, Florida, Monroe, Savoy.	Arthur C. Harrington, North Adams.	New Braintree, Sturbridge, West Brookfield.	Melville A. Stone, West Brookfield.
Cohasset.....	Stanley C. Lary, Cohasset.	Princeton, Sterling, Westminster.	Harry C. Waldron, Leominster.
Conway, Deerfield, Sunderland, Whatly.	Chester D. Stiles, South Deerfield.	Somerset, Swansea.	C. W. Walter, South Swansea.
		Stockbridge.....	Samuel B. Churchill, Stockbridge.
		Weston.....	Charles M. Eaton, Weston.
		Williamstown.....	Walter G. Mitchell, Williamstown.

¹ For other superintendents of Massachusetts, see p. 19.

VII.—DIVISION, TOWNSHIP, AND DISTRICT SUPERINTENDENTS—Continued.

NEW HAMPSHIRE.¹

Supervisory district.	Superintendent.	Supervisory district.	Superintendent.
Claremont, Charles-town.	William H. Slayton, Claremont.	Newport, New London.	Frederick D. Haywood, Newport.
Colebrook, Errol, Stewartstown, Wentworth Location.	S. H. Williams, Colebrook.	Pembroke, Allentown, Merrimack.	Henry S. Roberts, Suncook.
Conway, Madison, Bartlett.	Alonzo Knowlton, North Conway.	Penacook, Bradford.	George W. Sumner, Penacook.
Derry, Londonderry.	C. W. Cutts, Derry.	Pittsfield, Chichester, Loudon.	Channing T. Sanborn, Pittsfield.
Franklin, Hill.....	William C. Coggins, Franklin.	Salem, Atkinson, Hudson, Plaistow.	Howard L. Winslow, Salem.
Gorham, Randolph, Shelburne.	Jacob E. Wignot, Gorham.	Somersworth, Newmarket.	Louis De Witt Record, Somersworth.
Greenland, Newington, Durham, Rye.	Carl Cotton, Portsmouth.	Stratford, Northumberland, Columbia.	Orin M. Holman, Coos.
Hampstead, Raymond, Lee, Hampton.	Albert T. Lane, Hampton.	Tilton, Belmont, Gilmanton.	Charles A. Breck, Tilton.
Hillsboro, Antrim, Peterboro.	Frederick L. Kendall, Peterboro.	Troy, Fitzwilliam, Rindge, Jaffrey.	William L. MacDonald, East Jaffrey.
Hinsdale, Swanzey, Dublin, Winchester.	A. P. Averill, Keene.	Walpole, Westmoreland, Langdon.	Everett J. Best, Walpole.
Hopkinton, Weare, Bedford.	Fred S. Libbey, Contoocook.	Whitefield, Jefferson, Bethlehem Special.	Frank W. Jackson, Whitefield.
Lebanon, Enfield..	Thomas A. Roberts, Lebanon.	Wilton, Temple, New Ipswich.	Leonard S. Morrison, Wilton.
Lisbon, Landaff....	John S. Gilman, Lisbon.	Wolfeboro, Alton, Farmington.	F. W. Landman, Wolfeboro.
Littleton, Bethlehem Town.	David F. Carpenter, Littleton.	Woodsville, Haverhill, Bath.	Norman J. Page, Woodsville.
Marlboro, Harrisville, Hancock.	Frank M. Rich, Marlboro.		
Milford, Amherst, Hollis.	John Bacon, Milford.		

¹ For other superintendents of New Hampshire, see p. 23

NEW YORK.

County.	District superintendents.	County.	District superintendents.
Albany.....	Newton Sweet, Ravena.	Chenango.....	Ellen E. Baldwin, Lincklaen.
.	W. J. Haverly, West Berne.		Albert C. Bowers, Sherburne.
	Walter S. Clark, West Albany,		J. S. Childs, Oxford.
	R. F. D.		Jane I. Schenck, Greene.
Allegany.....	G. W. D'Autremont, Hume.	Clinton.....	Mary L. Isbell, Norwich.
	John D. Jones, Cuba.		Oliver A. Wolcott, Keeseville.
	E. D. Walters, Bolivar.		Ernest B. Sargeant, Ellenburg.
	Charles D. Hill, Angelica.		Clara E. Soden, Mooers Forks.
	Willet L. Ward, Wellsville.		S. B. Smith, East Chatham.
Broome.....	Kasson E. Beilby, Deposit.	Columbia.....	W. L. Millias, Valatie.
	J. E. Hurlburt, Windsor.		E. A. Smith, Blue Stores.
	Mabel L. Watrous, Endicott.	Cortland.....	C. W. Ellis, jr., McGraw.
	Erwin B. Whitney, Whitney Point.		Mrs. Ada M. Shuler, McGraw.
Cattaraugus.....	Joel J. Crandall, Franklinville.		Alice B. Greene, Maratho.
	Gilbert A. Farwell, Hinsdale.	Delaware.....	Lillian M. Reichard, Sidney.
	A. H. Mathewson, W. Valley.		Z. Le R. Myers, Downsville.
	G. E. Waller, Little Valley.		E. O. Harkness, Delhi.
	E. A. Stratton, Randolph.		L. R. Long, Margaretville.
Cayuga.....	H. S. R. Murphy, Cato.		M. G. Nelson, Franklin.
	Olin W. Wood, Auburn.		A. T. Hamilton, North Harpersfield.
	Anna M. Kent (Mrs.), Union Springs.	Dutchess.....	Frank L. Haight, Fishkill.
	G. B. Springer, Genoa.		F. E. Benedict, La Grangeville.
	Henry Greenfield, Moravia,		Clara E. Drum, Clinton Corners.
	R. F. D. 13.		W. R. Tremper, Rhinebeck.
Chautauqua.....	J. N. Palmer, Sheridan.	Erie.....	C. A. Heist, Clarence.
	James R. Flagg, Frewsburg.		H. A. Dann, Lancaster.
	J. M. Barker, Niohe.		W. E. Pierce, East Aurora.
	Pratt E. Marshall, Sherman.		E. D. Ormsby, North Collins.
	L. Waldo Swain, Westfield.		W. E. Bensley, Springville.
	J. S. Wright, Falconer.		
Chemung.....	Walter C. King, Horseheads.		
	Martha M. Cox, Elmira.		

VII.—DIVISION, TOWNSHIP, AND DISTRICT SUPERINTENDENTS—Continued.

NEW YORK—Continued.

County.	District superintendents.	County.	District superintendents.
Essex.....	C. J. Mousaw, Schroon Lake. Gertrude M. Spear, Westport. Mattie J. Prime, Upper Jay.	Orleans.....	Luella P. Hoyer, Medina, R. F. D. Cora V. Luttenton, Albion.
Franklin.....	Eugene L. Moe, Burke. G. La Graff, Tupper Lake. F. H. Wilcox, North Bangor.	Oswego.....	H. F. S. Salisbury (Mrs.), Clarendon. Mildred G. Pratt, Lecona.
Fulton.....	Gertrude E. Hyde, Moira. Fred A. Stryker, Stratford. C. E. Van Buren, Broadalbin.	Otsego.....	J. M. Bonner, Richland. Queenia R. Tooley, Fulton, R. F. D. 4. Charles I. Kingsbury, Mexico.
Genesee.....	E. M. McCullough, Batavia. T. A. Clement, South Byron.	Putnam.....	W. S. Gardner, Fulton.
Greene.....	Thos. C. Perry, Catskill. R. M. MacNaught, Windham. Walter J. Decker, Hunter.	Rensselaer.....	Harrison Coscaart, Cherry Val- ley. Menzo Burlingame, Worcester.
Hamilton.....	C. B. Hanley, Wells.	Rockland.....	J. B. McManus, Cooperstown.
Herkimer.....	A. J. Rose, West Winfield. Silas C. Kimm, Dolgeville. C. B. Keller, Little Falls. J. C. Spall, Cold Brook.	St. Lawrence.....	May Firman, Oneonta. M. R. Porter, Morris. Floyd R. Thayer, Edmeston.
Jefferson.....	C. M. Pierce, Adams. W. J. Linnell, Brownsville. T. B. Stoel, Depauville. R. W. Bowman, Sacketts Harbor. D. D. T. Marshall, Redwood.	Saratoga.....	J. H. Brooks, Garrison. Mrs. C. B. Clark, Troy. Mrs. Adelaide W. Gardner, Stephentown. G. W. Patterson, jr., East Greenbush.
Lewis.....	S. Freeman Graves, Philadel- phia. Glenn G. Steele, Croghan. F. Reid Spaulding, Copenha- gen. Ruth M. Johnston, Port Ley- den.	Schenectady.....	George W. Miller, Nanuet. W. T. Clark, Hailesboro.
Livingston.....	A. W. Trainor, West Leyden. John P. Magee, Groveland. Jay F. Smith, Dansville, R. F. D. 1. H. F. Collister, Dalton.	Schoharie.....	F. H. Wallace, Morristown. Carlos S. Blood, Heuvelton. Percy S. Ault, Waddington. Rose M. Libby, Colton. W. S. Herrick, Colton.
Madison.....	Irving S. Sears, Hamilton. Clayton J. Wratten, De Ruy- ter. H. C. W. Kingsbury, Morris- ville.	Schuyler.....	M. A. Hallahan, Brasher Falls. A. J. Fields, Winthrop. A. A. Lavery, Elmore.
Monroe.....	John B. Harris, Canastota. W. W. Rayfield, Webster. M. B. Furman, East Rochester. Fred W. Hill, Spencerport. John C. Malloch, Churchville.	Seneca.....	Lou Messinger, Ballston Spa. F. E. Hinman, Schuylerville.
Montgomery.....	N. Berton Alter, Nelliston. Lela G. Dodge (Mrs.), Fulton- ville.	Steuben.....	Ida M. Smith, Saratoga Springs. James Wingate, Schenectady.
Nassau.....	James S. Cooley, Mineola. W. C. Mephram, Merrick.	Suffolk.....	Leslie A. Tompkins, Jefferson..
Niagara.....	T. G. Cramer, Lockport. Orrin A. Kolb, Lockport, R. F. D. 5. W. D. Wisner, Ransomville.	Sullivan.....	W. E. Van Wormer, Middle- burg. R. W. Eldredge, Sharon Springs.
Oneida.....	Ray P. Snyder, New York Mills. Harry C. Buck, Clayville. W. J. Lewis, Westmoreland. F. E. Mathewson, Verona.	Tioga.....	Alberta Spaulding, Burdett.
Onondaga.....	Stanton J. Austin, Barneveld. Pauline L. Scott, Blossvale. Daniel M. Blue, Boonville. R. B. Searle, East Onondaga. G. T. Fuggle, Jamesville. E. E. McDowell, Memphis.	Tompkins.....	Jane M. Haring, Watkins.
Ontario.....	Manford D. Green, Liverpool. Florence E. S. Knapp (Mrs.), Camillus.	Ulster.....	Alice L. Owen, Ovid.
Orange.....	Leon J. Cook, East Bloomfield. W. A. Ingalls, Phelps. E. G. Soper, Seneca Castle. Harrie P. Weatherlow, Naples. Theron L. McKnight, Central Valley. O. Eichenberg, Monroe. S. A. Cortright, Middletown.	Warren.....	Charles B. Earl, Waterloo. Levi R. Tubbs, Corning, R. F. D. 2. Winfred Morrow, Bath. G. H. Guinnip, Addison. F. C. Wilcox, Greenwood. H. M. Brush, Arkport. Guyon J. Carter, Avoca. J. G. McConnell, Prattsburg. C. H. Howell, Riverhead. J. Henry Young, Central Islip. Leonard J. Smith, Smithtown Branch. F. J. Lewis, Barryville. Charles S. Hick, Jeffersonville. Mrs. Emma C. Chase, Liv- ingston Manor. A. E. Belden, Newark Valley. M. D. Goodrich, Tioga Center. H. T. Whittemore, Nichols. F. A. Beardsley, Trumans- burg, R. F. D. 33. Hattie K. Buck, North Lan- sing. John D. Bigelow, Ithaca. Emily S. Burnett, Kingston, Station R. J. U. Gillette, Port Ewen. J. M. Schoonmaker, Accord. W. J. Andrews, Oliveerea. F. F. Gunn, Glens Falls. J. R. Stickney, Bolton Land- ing.

VII.—DIVISION, TOWNSHIP, AND DISTRICT SUPERINTENDENTS—Continued.

NEW YORK—Continued.

County.	District superintendents.	County.	District superintendents.
Warren(contd)....	Rose Minnick (Mrs.), Glens Falls.	Westchester.....	S. J. Preston, White Plains. C. H. Cheney, White Plains.
Washington.....	Amelia Blasdell, Fort Ann. Myra L. Ingalsbe, Hartford. Mary A. Potter, Greenwich, R. F. D. 4. F. H. Rich, Salem.	Wyoming.....	R. D. Knapp, Purdy Station. John T. McGurran, Bliss. E. D. Jones, Wyoming.
Wayne.....	Helen C. Andrews (Mrs.), Lyons. Ida E. Cosad (Mrs.), Wolcott. A. H. McMurray, Walworth. R. O. Brundige, Ontario.	Yates.....	G. H. Stratton, Castile. J. F. Bullock, Penn Yan. E. P. Corbit, Rushville.

PHILIPPINE ISLANDS.

Division.	Superintendent.	Division.	Superintendent.
Augusan.....	George C. Kindley (acting), Butuan.	Mindoro.....	L. W. Cureton (acting), Calapan.
Albay.....	C. E. Hoyer (acting), Albany.	Mountain.....	D. M. Thomas (acting), Bontoc.
Antique.....	John H. Jenkins, San Jose.	Nueva Ecija.....	C. D. Whipple, Cabanatuan.
Batangas.....	Roy K. Gilmore, Batangas.	Nueva Vizcaya....	John J. Hefington (acting), Bayombong.
Bohol.....	O. H. Charles (acting), Tagbilaran.	Occ. Negros.....	Sinclair P. Stewart, Bacolod.
Bulacan.....	Harry Borgstadt, Malolos.	Or. Negros.....	C. A. Skattebol, Dumaguete.
Cagayan.....	Lloyd G. Kirby (acting), Tuguegarao.	Palawan.....	Robert Clauson (acting), Cuyo.
Camarines.....	George T. Shoens, Naga.	Pampanga-Bataan.	Samuel J. Wright, San Fernando.
Capiz.....	C. E. Ferguson, Capiz.	Pangasinan.....	H. A. Bordner, Lingayen.
Cavite.....	C. W. Franks, Cavite.	Rizal.....	H. S. Townsend, Pasig.
Cebu.....	Edward J. Murphy, Cebu.	Samar.....	Buren Graham (acting), Catbalogan.
Ilocos Norte.....	Hugh S. Mead, Laoag.	Sorsogon.....	Wiley B. Beard (acting), Sorsogon.
Ilocos Sur.....	J. Edgar Corley, Vigan.	Surigao-Misamis....	Robert L. Barron (acting), Surigao.
Iloilo.....	Charles E. Wright, Iloilo.	Tarlac.....	Henry M. Wagenblass, Tarlac.
Isabela.....	Lloyd G. Kirby (acting), Tuguegarao.	Tayabas.....	Wm. F. Montavon, Lucena.
Laguna.....	R. G. McLeod, Santa Cruz.	Union.....	F. J. Waters (acting), San Fernando.
Leyte.....	C. M. Moore, Tacloban.	Zambales.....	Adam C. Derkum, Iba.
Manila.....	Luther B. Bewley, Manila.	Normal school.....	A. W. Cain, Manila.
		Trade school.....	James F. Scouller (acting), Manila.

PORTO RICO.

Station.	Supervising principal.	Station.	Supervising principal.
San Juan.....	Theodule L. Morin.	Barros.....	George P. Leete.
Ponce.....	Charles H. Terry.	Juana Diaz.....	Charles J. Kelley.
Mayaguez.....	Marion A. Ducout.	Guayanilla.....	Francisco R. Lopez.
Arecibo.....	Manuel G. Ntn.	Yauco.....	Francisco Vizcarrondo.
Bayamon.....	John P. Blanco.	San German.....	George H. Hamor.
Rio Piedras.....	Cecil E. Stevens.	Cabo Rojo.....	Francisco Vincenty.
Carolina.....	Andreas Diaz.	Anasco.....	Carlos V. Urrutia.
Rio Grande.....	Henry T. Cowles.	Maricao.....	Cecilio T. Reyes.
Fajardo.....	Richard B. Barlow.	Lares.....	Allan H. Lynch.
Naguabo.....	William F. Littlefield.	San Sebastian.....	Miguel R. Cancio.
Humacao.....	Donald M. Gilbert.	Aguadilla.....	Jose G. Glinorio.
Yabucoa.....	Marshall D. Rice.	Isabela.....	Gerardo Selles y Sola.
Arroyo.....	Charles E. Miner.	Utuado.....	Jesse R. Buterbaugh.
Salinas.....	Juan E. Castillo.	Camuy.....	Elmer J. Bunting.
Juncos.....	Celestino Benitez.	Manati.....	Joseph C. Morin.
Caguas.....	Frank E. Swart.	Ciales.....	Luis A. Irizarry.
Guayama.....	George V. Keelan.	Vega Vaja.....	Frederick Yates.
Cayey.....	Manuel N. Collazo.	Corozal.....	Victor M. Suarez.
Comerio.....	Pedro N. Ortiz.	Toa Baja.....	Eugenio J. Vivas.
Aibonito.....	Ismael Maldonado.	Coamo.....	Ramiro Colon.
		Adjuntas.....	F. E. Rumig.

VII.—DIVISION, TOWNSHIP, AND DISTRICT SUPERINTENDENTS—Continued.

RHODE ISLAND.¹

Town.	Superintendent.	Town.	Superintendent.
Charlestown	Irving H. Greene Kenyon.	Barrington.....	Chester R. Shaw, Barrington.
East Greenwich....	Rev. Samuel W. Irwin, East Greenwich.	New Shoreham.....	Edgar F. Hamlin, M. D., Slatersville.
Exeter.....	Robert J. Sherman, Exeter.	North Smithfield...	Mrs. Emeline B. Eldredge, Bristol Ferry.
Foster.....	Leon A. Dexter, Greene.	Portsmouth.....	Charles J. Greene, Kenyon.
Gloucester.....	Mrs. Emma I. Hopkins, Chapachet.	Richmond.....	Andrew W. Burgess, North Scituate.
Hopkinton.....	Henry J. Wheeler, Ashaway.	Scituate.....	Irving S. Cook, M. D., Georgiaville.
Jamestown.....	Rev. Charles D. Burrows, Jamestown.	Smithfield.....	John E. Cole, Greene.
Little Compton....	J. Webster Coombs, Little Compton.	West Greenwich...	
Middletown.....	Joel Peckham, Melville.		

¹ For other superintendents of Rhode Island, see p. 30.VERMONT.¹

Supervision union.	Superintendent.	Supervision union.	Superintendent.
Alburg.....	Edwin S. Boyd.	Poultney.....	Nathaniel N. Love.
Barton.....	Clayton L. Erwin.	Proctor.....	William A. Beebe.
Bristol.....	Clarence H. Willey.	Randolph.....	Henry H. Rice.
Cambridge.....	Myron D. Young.	Readsboro.....	Frank E. Sawyer.
Canaan.....	Lyman M. Darling.	Richford.....	Edwin F. Greene.
Castleton.....	Philip R. Leavenworth.	Richmond.....	Horatio S. Read.
Chester.....	Percy H. Blake.	Rochester.....	Samuel H. Erskine.
Craftsbury.....	Clarence L. Cowles.	Shoreham.....	Eugene L. Eddy.
Derby.....	Margaret R. Kelley.	South Barre.....	George J. Seager.
East Barnet.....	Harvey Burbank.	South Royalton...	Merle A. Sturtevant.
East Corinth.....	G. Stanley Miller.	South Shaftsbury..	John D. Whittier.
East Fairfield.....	Sidney C. Harding.	Swanton.....	Homer E. Hunt.
Enosburg Falls....	Frederick W. Wallace.	Townshend.....	Fred L. Drew.
Essex Junction....	Minnie E. Hays.	Troy.....	William C. McGinnis.
Fair Haven.....	Willis H. Hosmer.	Vergennes.....	Wesley H. Douglas.
Hyde Park.....	Harold P. Crosby.	Waitsfield.....	Bennett C. Douglass.
Ludlow.....	Edward H. Dorsey.	Wallingford.....	Leon E. Bell.
Lyndonville.....	Martin E. Daniels.	Waterbury.....	Norman Frost.
Marshfield.....	Jesse M. Tebbetts.	Wells River.....	Waldo F. Glover.
Middlebury.....	Arthur W. Eddy.	West Brattleboro..	Bates E. Stover.
Morrisville.....	Carlton D. Howe.	West Fairlee.....	Charles P. McKnight.
Newport.....	Ernest A. Hamilton.	Williamstown.....	Leonard D. Smith.
North Montpelier..	Joseph W. Butterfield.	Woodstock.....	Leonora E. Taft.
Northfield.....	J. Allen Hunter.		

¹ For other superintendents of Vermont see p. 32.

VIRGINIA.

County.	Division superintendent.	County.	Division superintendent.
Accomac.....	G. G. Joynes, Onancock.	Caroline.....	John Washington, Milford.
Albemarle.....	H. M. McManaway, Charlottesville.	Carroll.....	E. M. Cooley, Woodlawn.
Alexandria.....	W. T. Hodges, Rosslyn.	Charles City.....	W. B. Coggin, Providence Forge.
Alleghany.....	J. G. Jeter, Covington.	Charlotte.....	S. P. Daniel, Drakes Branch.
Amelia.....	C. B. Bowry, Burkeville.	Charlottesville....	J. G. Johnson, Charlottesville.
Amherst.....	C. L. Scott, Amherst.	Chesterfield.....	Philip M. Tyler, Chester.
Appomattox.....	N. R. Featherston, Vera.	Clarke.....	C. G. Massey, White Post.
Augusta.....	F. M. Somerville, Staunton, R. F. D. 6.	Craig.....	W. O. Martin, New Castle.
Bath.....	Bruce R. Richardson, Hot Springs.	Culpeper.....	J. M. Bockham, Culpeper.
Bedford.....	C. M. Abbott, Bedford City.	Cumberland.....	C. W. Dickinson, jr., Cartersville.
Bland.....	Frank L. Dunn, Bland.	Dickenson.....	I. E. French, Clintwood.
Botetourt.....	Cary Breckenridge, Fincastle.	Dinwiddie.....	E. C. Powell, McKenney.
Brunswick.....	R. Lee Chambliss, Rawlings.	Elizabeth City....	John M. Willis, Hampton.
Buchanan.....	W. L. Ownbey, Grundy.	Essex.....	W. G. Reynolds, Center Cross.
Buckingham.....	John A. Twyman, Wingina, R. F. D.	Fairfax.....	M. D. Hall, Burke.
Buena Vista.....	J. P. McCluer, Buena Vista.	Fauquier.....	E. Albert Smith, Warrenton.
Campbell.....	W. L. Garbee, Lawyers.	Floyd.....	Isaac L. Epperly, Floyd.
		Fluvanna.....	T. H. Shepherd, Wilmington.
		Franklin.....	H. D. Dillard, Rocky Mount.

VII.—DIVISION, TOWNSHIP, AND DISTRICT SUPERINTENDENTS—Continued.

VIRGINIA.

VIII.—OFFICERS OF BOARDS OF TRUSTEES OF UNIVERSITIES AND COLLEGES.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
ALABAMA.			
Athens	Athens Female College.....	W. T. Sanders.....	R. N. Cartwright.
Auburn.....	Alabama Polytechnic Institute.	George E. O'Neal.....	R. W. Burton.
Birmingham.....	Birmingham College.....	R. S. Munger.....	E. M. Glenn.
Do.....	Howard College.....	James B. Ellis.....	P. G. Rathff.
Greensboro.....	Southern University.....	J. B. Frazer.....	E. A. Donnelly.
Marion.....	Judson College.....	Ernest Lamar.....	T. T. Daughdrill.
Montgomery.....	Woman's College of Alabama.....	M. H. Holt, D. D.....	J. M. Donnelly, D. D.
St. Bernard.....	St. Bernard College.....	Bernard Menges, O. S. B.	Charles Fries, O. S. B.
Spring Hill.....	Spring Hill College.....	E. Cummings, S. J.....	John J. Navin, S. J.
Tuscaloosa.....	Central Female College.....		
University.....	University of Alabama.....	Hon. Emmet O'Neal..	Robeson Brown.
ARIZONA.			
Tucson.....	University of Arizona.....	Rev. L. W. Wheatley.	Charles O. Case.
ARKANSAS.			
Arkadelphia.....	Henderson-Brown College.....	Finley Gibson, D. D ..	C. C. Tobey.
Do.....	Ouachita College.....		
Batesville.....	Arkansas College.....	James P. Coffin.....	J. L. Boggs.
Clarksville.....	Arkansas Cumberland College.	W. H. Wilson.....	W. H. H. Shibley.
Conway.....	Central College.....	J. T. Runyan, M. D....	J. F. Jones.
Do.....	Hendrix College.....	James Thomas.....	V. D. Hill.
Fayetteville.....	University of Arkansas.....	Hon. George W. Hays.	W. H. Cravens.
Little Rock.....	Philander Smith College (colored).	L. G. Hodges.....	F. B. Coffin.

VIII.—OFFICERS OF BOARDS OF TRUSTEES OF UNIVERSITIES AND COLLEGES—CON.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
CALIFORNIA.			
Berkeley.....	University of California.....	Hon. Hiram W. Johnson.	Victor H. Henderson.
Claremont.....	Pomona College.....	George W. Marston...	Charles B. Sumner.
Los Angeles.....	Occidental College.....	Hon. Frank P. Flint..	William S. Young.
Do.....	St. Vincent's College.....	.....	.....
Do.....	University of Southern California.	Ezra A. Healy.....	A. E. Pomeroy.
Mills College.....	Mills College.....	David P. Barrows.....	Warren Olney, sr.
Oakland.....	St. Mary's College.....	Brother Zenophon-Cyril.	Brother V. Leo.
Pasadena.....	Throop College of Technology.	Norman Bridge.....	Edward C. Barrett.
San Francisco.....	St. Ignatius University.....	Albert F. Trivelli, S. J.	D. J. Mahoney, S. J.
San Jose.....	College of the Pacific.....	Rolla V. Watt.....	H. E. Mines.
Santa Clara.....	University of Santa Clara.....	Walter F. Thornton, S. J.	Richard H. Brainard, S. J.
Stanford University....	Leland Stanford Junior University.	William M. Newhall..	Leon Sloss.
Whittier.....	Whittier College.....	William V. Coffin.....	Lydia J. Jackson.
COLORADO.			
Boulder.....	University of Colorado.....	Livingston Farrand, ex. off.	Frank H. Walcott.
Colorado Springs.....	Colorado College.....	William F. Slocum....	Willis L. Armstrong.
Denver.....	College of the Sacred Heart....	J. J. Brown.....	E. S. J. Hyde.
Fort Collins.....	Colorado Agricultural College.	A. A. Edwards.....	L. M. Taylor.
Golden.....	State School of Mines.....	Fred C. Steinhauer....	James T. Smith.
Greeley.....	State Teachers College of Colorado.	H. V. Kepner.....	A. J. Park.
Montclair.....	Colorado Woman's College.....	A. H. Stockham.....	Rufus G. Gentry.
University Park.....	University of Denver.....	William G. Evans.....	Robert H. Beggs.
Westminster.....	Westminster University.....	John C. Murray.....	James S. Temple.
CONNECTICUT.			
Hartford.....	Trinity College.....	Flavel S. Luther.....	P. Henry Woodward.
Middletown.....	Wesleyan University.....	John C. Clark.....	David G. Downey.
New Haven.....	Yale University.....	Arthur Twining Hadley.	Anson Phelps Stokes.
Storrs.....	Connecticut Agricultural College.	H. G. Manchester.....	O. F. King.
DELAWARE.			
Newark.....	Delaware College.....	Hon. Preston Lea.....	Charles B. Evans.
DISTRICT OF COLUMBIA.			
Washington.....	Catholic University of America	James Cardinal Gibbons.	C. P. Maes.
Do.....	Gallaudet College.....	Percival Hall.....	Charles S. Bradley.
Do.....	Georgetown University.....	Alphonsus J. Donlon, S. J.	Francis X. Anglim.
Do.....	George Washington University.	John Bell Larnier.....	Richard Cobb.
Do.....	Howard University (colored)..	Staunton J. Pealle....	George W. Cook.
Do.....	St. John's College.....	Brother Philip.....	Brother Denis.
Do.....	Trinity College.....	James Cardinal Gibbons.	.....
FLORIDA.			
Deland.....	John B. Stetson University....	John B. Stetson, jr....	Silas B. Wright.
Gainesville.....	University of Florida.....	P. K. Yonge.....	J. G. Kellum.
Sutherland.....	Southern College.....	J. B. Mitchel.....	J. B. Ley.
Tallahassee.....	Florida State College for Women.	P. K. Yonge.....	J. G. Kellum.
Winter Park.....	Rollins College.....	W. F. Blackman.....	W. R. O'Neal.
GEORGIA.			
Athens.....	University of Georgia.....	Henry D. McDaniel...	T. W. Reed.
Atlanta.....	Morehouse College (colored)...	John F. Purser.....	E. R. Carter.
Do.....	Atlanta University (colored)...	Edward T. Ware.....	William B. Matthews.
Do.....	Georgia School of Technology...	N. E. Harris.....	James S. Akers.
Do.....	Morris Brown College (colored)	J. S. Flipper.....	L. H. Smith.
College Park.....	Cox College.....	.....	.....
Cuthbert.....	Andrew College.....	J. B. Wight.....	W. McMichael.
Dahlonega.....	North Georgia Agricultural College.	W. B. McCants.....	R. H. Baker.
Decatur.....	Agnes Scott College.....	S. M. Inman.....	F. H. Gaines.

VIII.—OFFICERS OF BOARDS OF TRUSTEES OF UNIVERSITIES AND COLLEGES—Con.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
GEORGIA.			
Demorest.....	Piedmont College.....	Philip F. Moxon.....	G. S. Butler.
Porsyth.....	Bessie Tift College.....	O. H. B. Bloodworth..	A. J. Moncrief.
Gainesville.....	Brenau College.....	H. H. Dean.....	J. H. Hosch.
Lagrange.....	Lagrange College.....	John M. Barnard.....	Arthur H. Thompson.
Do.....	Southern Female College.....	L. J. Render.....	E. R. Callaway.
Macon.....	Mercer University.....	J. G. McCall.....	G. W. Garner.
Do.....	Wesleyan Female College.....	Isaac Hardeman.....	George B. Jewett.
Oxford.....	Emory College.....	Asa G. Candler.....	Charles B. Shelton.
Rome.....	Shorter College.....	W. W. Brookes.....	J. P. Cooper.
South Atlanta.....	Clark University (colored)....	F. B. Leete.....	W. H. Crogman.
HAWAII.			
Honolulu.....	College of Hawaii.....	W. R. Farrington.....	A. L. Dean.
IDAHO.			
Caldwell.....	College of Idaho.....	David A. Clemens.....	L. S. Dille.
Moscow.....	University of Idaho.....	David L. Evans.....	H. Harland.
ILLINOIS.			
Abingdon.....	Hedding College.....	Joe Bell.....	E. H. Bradway.
Aledo.....	William and Vashti College....	Henry E. Burgess.....	David A. Hebel.
Alton.....	Shurtleff College.....	A. A. Curry.....	John Leverett.
Bloomington.....	Illinois Wesleyan University....	Sain Welty.....	F. M. Austin.
Bourbonnais.....	St. Viator's College.....	J. P. O'Mahoney, C. S. V.	W. J. Bergin, C. S. V.
Carlinville.....	Blackburn College.....	Ira W. Allen.....	Thomas Rinaker.
Carthage.....	Carthage College.....	Ezra Keller.....	William Rosenstengel.
Chicago.....	Armour Institute of Technology.	J. Ogden Armour.....	Frederick U. Smith.
Do.....	Lewis Institute.....	Christian C. Kohlsaat..	W. H. Hall.
Do.....	Loyola University.....	John L. Mathery, S. J.	Abbott Esterman, S. J.
Do.....	University of Chicago.....	Martin A. Ryerson.....	J. Spencer Dickerson.
Decatur.....	James Millikin University....	W. H. Penhallegon....	C. W. Dyer.
Eureka.....	Eureka College.....	N. B. Crawford.....	Clara L. Davidson.
Evanston.....	Northwestern University.....	William F. McDowell..	Frank Philip Crandon.
Ewing.....	Ewing College.....	George W. Allison.....	J. A. Seargeant.
Galesburg.....	Knox College.....	Thomas McClelland....	Alvah S. Green.
Do.....	Lombard College.....	J. B. Harsh.....	Franklin J. Drake.
Greenville.....	Greenville College.....	William Pearce.....	F. L. Hall.
Jacksonville.....	Illinois College.....	Andrew Russel.....	Carl E. Black.
Do.....	Illinois Woman's College.....	T. J. Pitner.....	Joseph R. Harker.
Knoxville.....	St. Mary's School.....	M. Edward Fawcett....	Charles W. Leffingwell.
Lake Forest.....	Lake Forest College.....	Clayton Mark.....	John H. S. Lee.
Lebanon.....	McKendree College.....	Hon. Charles S. Deneen..	James C. Dolley.
Lincoln.....	Lincoln College.....	J. E. Miller.....	H. E. Starkey.
Monmouth.....	Monmouth College.....	Thomas H. McMichael..	Ivory Quinby.
Mount Carroll.....	Frances Shimer School.....	Henry S. Metcalf.....	William P. McKee.
Naperville.....	Northwestern College.....	Samuel P. Spreng.....	E. M. Spreng.
Quincy.....	St. Francis Solanus College....	Fortunatus Hausser....	Edward Mueller.
Rockford.....	Rockford College.....	John Barnes.....	George O. Forbes.
Rock Island.....	Augustana College.....	Joseph A. Anderson....	Alfred Appell.
Upper Alton.....	Shurtleff College.....	A. A. Curry.....	John Leverett.
Urbana.....	University of Illinois.....	William L. Abbott.....	H. E. Cunningham.
Wheaton.....	Wheaton College.....	Charles A. Blanchard..	Darien A. Straw.
INDIANA.			
Bloomington.....	Indiana University.....	Benjamin F. Shively..	John W. Cravens.
Collegeville.....	St. Joseph's College.....	George Hindelang, C. P. S.	D. Brackman, C. P. S.
Crawfordsville.....	Wabash College.....	Harry J. Milligan.....	Theodore H. Ristine.
Earlham.....	Earlham College.....	Amos K. Hollowell....	Mary A. Stubbs.
Fort Wayne.....	Concordia College.....	A. Lange.....	H. Luehr.
Franklin.....	Franklin College.....	Grafton Johnson.....	Will A. Burton.
Goshen.....	Goshen College.....	John Blosser.....	D. D. Miller.
Greencastle.....	De Pauw University.....	Hugh Dougherty.....	H. H. Hornbrook.
Hanover.....	Hanover College.....	Jasper W. La Grange..	John S. Howk.
Indianapolis.....	Butler College.....	Hilton U. Brown.....	Chauncy Butler.
Lafayette.....	Purdue University.....	Addison C. Harris.....	Edward A. Ellsworth.
Merom.....	Union Christian College.....	George W. Buff.....	W. S. Sanford.
Moore's Hill.....	Moore's Hill College.....	W. H. Watson.....	George H. Murphy.
Notre Dame.....	St. Mary's College and Academy.	Mother M. Perpetua..	Mother M. Aquina.
Notre Dame.....	University of Notre Dame.....	Andrew Morrissey, C. S. C.	Daniel E. Hudson, C. S. C.
Oakland City.....	Oakland City College.....		

VIII.- OFFICERS OF BOARDS OF TRUSTEES OF UNIVERSITIES AND COLLEGES--CON.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
INDIANA continued.			
St. Meinrad.....	St. Meinrad College.....	A. Schmitt, O. S. B....	Lucas Gruwe, O. S. B.
Terre Haute.....	Rose Polytechnic Institute....	W. C. Ball.....	Paul N. Bogart.
Upland.....	Taylor University.....	C. C. Ayres.....	George W. Mooney.
Valparaiso.....	Valparaiso University.....	Henry B. Brown.....	John E. Roessler.
Vincennes.....	Vincennes University.....	W. M. Hindman.....	W. B. Robinson.
IOWA.			
Ames.....	Iowa State College of Agriculture and Mechanic Arts.	D. D. Murphy.....	W. H. Gemmill.
Cedar Falls.....	Iowa State Teachers College....	do.....	Do.
Cedar Rapids.....	Coe College.....	E. R. Burkhalter.....	John S. Ely.
Clinton.....	Wartburg College.....	C. Proehl.....	J. F. Reinsch.
Decorah.....	Luther College.....	C. K. Preus.....	Chr. Næseth.
Des Moines.....	Des Moines College.....	J. R. Vaughan.....	Nelson Royal.
Do.....	Drake University.....	Theo. P. Shonts.....	George A. Jewett.
Dubuque.....	St. Joseph's College.....	Archbishop Keane.....	Albert S. Peikert.
Fairfield.....	Parsons College.....	Thomas D. Foster.....	Rollin J. Wilson.
Fayette.....	Upper Iowa University.....	Charles G. Shade.....	C. R. Carpenter.
Grinnell.....	Grinnell College.....	John H. T. Main.....	H. W. Somers.
Hopkinton.....	Lenox College.....	D. W. Fahs.....	W. S. Beels.
Indianola.....	Simpson College.....	W. H. Berry.....	J. W. Henderson.
Iowa City.....	State University of Iowa.....	D. D. Murphy.....	W. H. Gemmill.
Iowa Falls.....	Ellsworth College.....	Silas M. Weaver.....	F. D. Peet.
Lamoni.....	Graceland College.....	Albert Carmichael.....	J. F. Garver.
Mount Pleasant.....	Iowa Wesleyan College.....	W. S. Withrow.....	Thomas Osborn.
Mount Vernon.....	Cornell College.....	do.....	H. H. Rood.
Oskaloosa.....	Penn College.....	Irving C. Johnson.....	Waldo E. Hadley.
Pella.....	Central University of Iowa.....	J. H. Johnson.....	R. R. Sadler.
Sioux City.....	Morningside College.....	E. C. Hellman.....	J. C. Lockin.
Storm Lake.....	Buena Vista College.....	R. L. Barackman.....	W. S. Edson.
Tabor.....	Tabor College.....	Nelson W. Wehrhan.....	C. F. Fisher.
Toledo.....	Leander Clark College.....	J. J. Shambaugh.....	Ross Masters.
University Park.....	Central Holiness University....	George Ramsay.....	Mrs. W. R. Gilmora.
KANSAS.			
Atchison.....	Midland College.....	E. E. Stauffer.....	M. F. Troxell.
Do.....	St. Benedict's College.....	do.....	do.....
Baldwin.....	Baker University.....	Nelson Case.....	Charles E. Beeks.
Emporia.....	College of Emporia.....	William H. Foulkes.....	W. W. Bowman.
Highland.....	Highland College.....	William M. Boone.....	G. J. Ratcliffe.
Holton.....	Campbell College.....	G. L. Hursch.....	Samuel Osterbold.
Kansas City.....	Kansas City University.....	S. S. Fisher.....	J. H. Bennett.
Lawrence.....	University of Kansas.....	Ed. T. Hackney.....	D. M. Bowen.
Lindsborg.....	Bethany College.....	Alfred Bergin.....	Andrew Monson.
McPherson.....	McPherson College.....	J. J. Yoder.....	H. J. Harnly.
Manhattan.....	Kansas State Agricultural College.	Ed. T. Hackney.....	D. M. Bowen.
Ottawa.....	Ottawa University.....	W. C. Coleman.....	A. Willis.
St. Marys.....	St. Mary's College.....	William J. Wallace, S. J.	Thomas A. McNeive, S. J.
Salina.....	Kansas Wesleyan University..	W. O. Shepard.....	C. W. Stevens.
Sterling.....	Cooper College.....	W. B. Graham.....	H. R. Ross.
Topeka.....	Washburn College.....	Duncan L. McEachron.....	Ella May Pixley.
Wichita.....	Fairmount College.....	P. H. Landergin.....	Robert L. Holmes.
Do.....	Friends' University.....	Calvin C. Kesinger.....	William S. Hadley.
Winfield.....	Southwestern College.....	A. O. Ebright.....	R. L. George.
KENTUCKY.			
Berea.....	Berea College.....	William G. Frost.....	E. A. Thompson.
Bowling Green.....	Ogden College.....	Max B. Nahm.....	D. W. Wright.
Danville.....	Kentucky College for Women..	John A. Quisenberry.....	J. A. Cheek.
Do.....	Central University of Kentucky.	A. J. A. Alexander.....	Do.
Georgetown.....	Georgetown College.....	G. H. Nunnally.....	J. W. Thacker.
Glasgow.....	Liberty College (for women) ..	R. E. Hatton.....	Karl Rapp.
Harrodsburg.....	Beaumont College.....	J. G. Hunter.....	John La Fon.
Hopkinsville.....	Bethel Female College.....	C. M. Thompson.....	T. W. Blakey.
Lexington.....	Hamilton College for Women..	J. W. Porter.....	Richard Wallace.
Do.....	Sayre College.....	Clifton B. Ross.....	J. M. Spencer.
Do.....	State University of Kentucky.	Hon. James B. McCreary.	William T. Lafferty.
Do.....	Transylvania University.....	Matthew Walton.....	J. W. Porter.
Louisville.....	University of Louisville.....	A. J. Ford.....	W. H. Bradbury.
Owensboro.....	Owensboro Female College....	R. L. Lancaster.....	Henry W. Pearson.
Russellville.....	Bethel College.....	M. E. Alderson.....	H. L. Trimble.
Do.....	Logan Female College.....	R. W. Browder.....	S. M. Miller.
St. Mary.....	St. Mary's College.....	Michael Jaglowicz, C. R.	Ignatius Perius, C. R.
Winchester.....	Kentucky Wesleyan College....	John R. Deering.....	J. P. Strother.

VIII.—OFFICERS OF BOARDS OF TRUSTEES OF UNIVERSITIES AND COLLEGES—CON.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
LOUISIANA.			
Baton Rouge.....	Louisiana State University and Agricultural and Mechanical College.	Hon. L. E. Hall.....	A. T. Prescott.
Clinton.....	Silliman Collegiate Institute...	D. F. Wilkinson.....	D. M. Pipes.
Convent.....	Jefferson College.....	.....	.....
Mansfield.....	Mansfield Female College.....	R. T. Moore.....	R. E. Babbitts.
New Orleans.....	H. Sophie Newcomb Memorial College.	R. M. Walmsley.....	L. A. Wogan.
Do.....	Leland University (colored)...	John Humpstone.....	Armand Romain.
Do.....	Loyola University.....	A. E. Otis, S. J.....	John J. Sherry, S. J.
Do.....	New Orleans University (colored).	Bishop Thirkield.	Valcour Chapman.
Do.....	Tulane University of Louisiana.	R. M. Walmsley.....	L. A. Wogan.
MAINE.			
Brunswick.....	Bowdoin College.....	William de Witt Hyde	Barrett Potter.
Lewiston.....	Bates College.....	George C. Chase.....	Franklin M. Drew.
Orono.....	University of Maine.....	Samuel W. Gould.....	Sumner P. Mills.
Van Buren.....	Van Buren College (St. Mary's).	Matthew E. Thouvenin, S. M.	.....
Waterville.....	Colby College.....	Leslie C. Cornish.....	Wilford C. Chapman.
MARYLAND.			
Annapolis.....	St. John's College.....	Robert Moss.....	L. Dorsey Gassaway.
Do.....	United States Naval Academy	Capt. W. F. Fullam, chairman of Academic Board.	Lieut. Com. C. Shackford, secretary of Academic Board.
Baltimore.....	Goucher College.....	Summerfield Baldwin.	L. T. Widerman.
Do.....	Johns Hopkins University.....	R. Brent Keyser.....	Henry D. Harlan.
Do.....	Loyola College.....	William J. Ennis, S. J..	Richard A. Fleming, S. J.
Do.....	Morgan College (colored).....	John F. Goucher.....	Joseph H. Lockerman.
Do.....	Mount St. Joseph's College.....	Brother Isador, C. F. X.	Brother Philip, C. F. X.
Chestertown.....	Washington College.....	James A. Pearce.....	Lewin W. Wickes.
College Park.....	Maryland Agricultural College.	Hon. Phillips L. Goldsborough.	Herschel Ford.
Ellicott City.....	Rock Hill College.....	Brother Philip, F. S. C..	Brother Julius, F. S. C.
Emmitsburg.....	Mount St. Mary's College.....	Mgr. Bernard J. Bradley.	John C. McGovern.
Frederick.....	Hood College.....	William C. Schaeffer..	Jacob Rohrback.
Lutherville.....	Maryland College for Women.	George Scholl.....	James S. Nussear.
Westminster.....	Western Maryland College....	Charles Billingslea.....	T. H. Lewis.
MASSACHUSETTS.			
Amherst.....	Amherst College.....	George A. Plimpton...	Williston Walker.
Do.....	Massachusetts Agricultural College.	Charles A. Gleason....	Wilfred Wheeler.
Boston.....	Boston College.....	Thomas I. Gasson, S. J.	.....
Do.....	Boston University.....	John L. Bates.....	George S. Butters.
Do.....	Massachusetts Institute of Technology.	Richard C. MacLaurin.	James P. Munroe.
Do.....	Simmons College.....	Henry le Favour.....	John W. Bartol.
Cambridge.....	Harvard University.....	A. Lawrence Lowell..	G. Peabody Gardner, jr.
Do.....	Radcliffe College.....	Le Baron R. Briggs...	Mrs. S. Burt Wollbach.
Northampton.....	Smith College.....	Marion le Roy Burton.	Charles N. Clark.
Norton.....	Wheaton College.....	Samuel V. Cole.....	Annie M. Kilham.
South Hadley.....	Mount Holyoke College.....	Joseph A. Skinner.....	John C. Schwab.
Tufts College.....	Tufts College.....	Austin B. Fletcher....	Edmund W. Kellogg.
Wellesley.....	Wellesley College.....	Bishop William Lawrence.	Mrs. Henry F. Durant.
Williamstown.....	Williams College.....	H. A. Garfield.....	Willard E. Hoyt.
Worcester.....	Clark University.....	A. George Bullock....	G. Stanley Hall.
Do.....	Clark College.....	do.....	Do.
Do.....	College of the Holy Cross.....	Joseph N. Dinand, S. J.	James A. Mullen, S. J.
Do.....	Worcester Polytechnic Institute.	Charles G. Washburn.	Charles Baker.
MICHIGAN.			
Adrian.....	Adrian College.....	G. Roscoe Smith.....	Frank W. Cooke.
Albion.....	Albion College.....	Charles M. Ranger....	Samuel Dickie.
Alma.....	Alma College.....	James M. Barkley....	Albert P. Cook.
Ann Arbor.....	University of Michigan.....	Harry B. Hutchins....	Shirley W. Smith.
Detroit.....	University of Detroit.....	William F. Dooley, S. J.	William T. Doran, S. J.
East Lansing.....	Michigan Agricultural College.	Robert D. Graham....	Addison M. Brown.
Hillsdale.....	Hillsdale College.....	W. E. Ambler.....	Grover A. Jackson.

VIII.—OFFICERS OF BOARDS OF TRUSTEES OF UNIVERSITIES AND COLLEGES—CON.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
MICHIGAN—continued.			
Holland.....	Hope College.....	A. van den Berg.....	Gerrit J. Diekema.
Houghton.....	Michigan College of Mines.....	William Kelley.....	F. W. McNair.
Kalamazoo.....	Kalamazoo College.....	R. E. Olds.....	C. W. Oakley.
Olivet.....	Olivet College.....	James S. Williamson..	J. L. Harter.
MINNESOTA.			
Albert Lea.....	Albert Lea College.....	H. E. Skinner.....	John F. D. Melghen.
Collegeville.....	St. John's University.....	Herman Bergmann, O. S. B.	Herbert Bierschinger. O. S. B.
Minneapolis.....	Augsburg Seminary.....	K. B. Birkeland.....	Fred Paulson.
Do.....	University of Minnesota.....	John Lind.....	George H. Hayes.
Northfield.....	Carleton College.....	David P. Jones.....	Harlan W. Page.
Do.....	St. Olaf College.....	S. H. Holstad.....	O. O. Erling.
St. Paul.....	Hamline University.....	Matthew G. Norton...	Joseph N. Hackney.
Do.....	Macalester College.....	Thomas Shaw.....	B. H. Schriber.
St. Peter.....	Gustavus Adolphus College...	A. A. Stomberg.....	C. Swanson.
MISSISSIPPI.			
Agricultural College....	Mississippi Agricultural and Mechanical College.	Hon. Earl Brewer.....	O. F. Lawrence.
Blue Mountain.....	Blue Mountain Female College	B. G. Lowrey.....	T. C. Lowrey.
Brookhaven.....	Whitworth Female College....	Thad. B. Lampton....	H. B. Watkins.
Clinton.....	Hillman College.....	W. T. Ratliff.....	W. A. McComb.
Do.....	Mississippi College.....	do.....	Do.
Columbus.....	Industrial Institute and Col- lege.	Hon. Earl Brewer.....	O. F. Lawrence.
French Camp.....	Central Mississippi Institute.	.....	.....
Grenada.....	Grenada College.....	J. R. Bingham.....	H. K. Barwick.
Holly Springs.....	Rust University (colored)....	John E. Anderson.....	J. M. Shumpert.
Jackson.....	Bellhaven College for Young Ladies.	J. R. Dobyns.....	.....
Do.....	Millsaps College.....	W. B. Murrah.....	J. B. Streater.
Meridian.....	Meridian Male College.....	L. P. Brown.....	T. C. Harmon.
Do.....	Meridian Woman's College....	do.....	Do.
Pontotoc.....	Chickasaw Female College....	.....	.....
Port Gibson.....	Port Gibson Female College....	M. M. Satterfield.....	T. B. Holloman.
University.....	University of Mississippi.....	Hon. Earl Brewer.....	O. F. Lawrence.
MISSOURI.			
Albany.....	Palmer College.....	J. W. Piper.....	E. A. Watkins.
Cameron.....	Missouri Wesleyan College....	J. O. Taylor.....	W. F. Burris.
Canton.....	Christian University.....	W. B. McRoberts.....	Ed N. Cason.
Columbia.....	Christian College.....	D. A. Robnett.....	Mrs. L. W. St. Clair.
Do.....	Stephens College.....	W. W. Charters.....	J. E. Thornton.
Do.....	University of Missouri.....	David R. Francis.....	J. G. Babb.
Fayette.....	Central College.....	John A. Rich.....	L. W. Jacobs.
Do.....	Howard Payne College.....	A. W. Walker.....	H. K. Givens.
Fulton.....	Westminster College.....	B. F. Edwards.....	B. H. Charles.
Do.....	Synodical Female College....	John F. Cowan.....	A. D. Smith.
Glasgow.....	Pritchett College.....	J. W. Southworth.....	W. P. Pritchett.
Lexington.....	Central Female College.....	P. P. Lewis (acting)...	E. N. Hopkins.
Do.....	Lexington College for Young Women.	G. W. Hyde.....	H. C. Wallace.
Liberty.....	Liberty Ladies College.....	.....	.....
Do.....	William Jewell College.....	J. S. Major.....	J. E. Cook.
Marshall.....	Missouri Valley College.....	W. P. Stark.....	D. F. Manning.
Mexico.....	Hardin College.....	A. G. Turner.....	C. F. Clark.
Morrisville.....	Scarritt-Morrisville College...	Sim Beam.....	J. E. McDonald.
Nevada.....	Cotter College.....	F. H. Glenn.....	J. M. Hall.
Parkville.....	Park College.....	C. L. Brokaw.....	R. B. Elliott.
St. Charles.....	Lindenwood College for Wo- men.	S. J. Niccols.....	Henry P. Wyman.
St. Louis.....	Christian Brothers College....	Brother Emery, F. S. C.	Brother Peter, F. S. C.
Do.....	Forest Park University.....	.....	.....
Do.....	St. Louis University.....	Bernard J. Otting, S. J.	Matthew McManamy, S. J.
Do.....	Washington University.....	Robert S. Brookings..	Edmund A. Engler.
Springfield.....	Drury College.....	.....	G. W. Nonenacher.
Tarkio.....	Tarkio College.....	A. L. Davidson.....	John P. Stevenson.
Warrenton.....	Central Wesleyan College....	Franz Piehler.....	D. W. Smith.
MONTANA.			
Bozeman.....	Montana College of Agricul- ture and Mechanic Arts.	Hon. S. V. Stewart....	H. A. Davee.
Butte.....	Montana State School of Mines	Charles H. Bowman...	B. H. Dunshee.
Missoula.....	University of Montana.....	E. B. Craighead, ex. off.	J. D. Dunlop.

VIII.—OFFICERS OF BOARDS OF TRUSTEES OF UNIVERSITIES AND COLLEGES—Con.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
NEBRASKA.			
Bellevue.....	Bellevue College.....	C. M. Wilhelm.....	G. G. Wallace.
Bethany.....	Cotner University.....	Jesse B. Strode.....	John H. Bicknell.
College View.....	Union College.....	R. A. Underwood.....	H. A. Morrison.
Crete.....	Doane College.....	Charles C. Smith.....	George W. Mitchell.
Grand Island.....	Grand Island College.....	I. W. Carpenter.....	Elias F. Starr.
Hastings.....	Hastings College.....	J. W. James.....	P. L. Johnson.
Lincoln.....	University of Nebraska.....	Charles S. Allen.....	James S. Dales.
Omaha.....	Crelghton University.....	F. X. McMenamy, S. J.	William P. Whelan, S. J.
Do.....	University of Omaha.....	Archie W. Carpenter..	W. T. Graham.
University Place.....	Nebraska Wesleyan University.	A. L. Johnson.....	G. E. Currier.
York.....	York College.....	C. E. Sandall.....	J. W. Purinton.
NEVADA.			
Reno.....	State University of Nevada...	Hosea E. Reid.....	George H. Taylor.
NEW HAMPSHIRE.			
Durham.....	New Hampshire College of Agriculture and Mechanic Arts.	H. L. Boutwell.....	J. A. Tufts.
Hanover.....	Dartmouth College.....	Ernest Fox Nichols...	William Martin Chase.
Manchester.....	St. Anselm's College.....	Ernest Helmstetter, O. S. B.	Frederick Z winger, O. S. B.
NEW JERSEY.			
Convent Station.....	College of St. Elizabeth.....	John J. O'Connor.....	
Hoboken.....	Stevens Institute of Technology.	Alex. C. Humphreys..	Franklin B. Kirkbride.
Jersey City.....	St. Peter's College.....	Joseph A. Mulry, S. J..	James F. McDermott, S. J.
Kenilworth.....	Upsala College.....	Mauritz Stolpe.....	G. Olson.
New Brunswick.....	Rutgers College.....	William H. S. Demarest.	J. Preston Searle.
Princeton.....	Princeton University.....	John G. Hibban.....	Charles W. McAlpin.
South Orange.....	Seton Hall College.....	John J. O'Connor.....	James J. Sheehan.
NEW MEXICO.			
Albuquerque.....	University of New Mexico.....	George L. Brooks.....	J. A. Reidy.
Socorro.....	New Mexico School of Mines..	A. C. Torres.....	M. Cooney.
State College.....	New Mexico College of Agriculture and Mechanic Arts.	James H. Paxton.....	M. O. Llewellyn.
NEW YORK.			
Albany.....	New York State College for Teachers.	John H. Finley.....	Samuel B. Ward.
Alfred.....	Alfred University.....	Vernon A. Baggs.....	D. S. Burdick.
Annadale.....	St. Stephen's College.....	David H. Greer.....	Edgerton Parsons.
Aurora.....	Wells College.....	N. Lansing Zabriskie..	Robert L. Zabriskie.
Brooklyn.....	Adelphi College.....	James K. Post.....	Herbert K. Twitchell.
Do.....	Polytechnic Institute of Brooklyn.	William H. Nichols..	Richard L. Russell.
Do.....	St. Francis College.....	Joseph O'Connell.....	Brother Stanislaus.
Do.....	St. John's College.....	John W. Moore, C. M..	E. L. Carey, C. M.
Buffalo.....	Cankins College.....	George J. Krim, S. J..	John J. Grene, S. J.
Canton.....	St. Lawrence University.....	Edward A. Merritt....	Frank E. Cleaveland.
Clinton.....	Hamilton College.....	Elihu Root.....	George E. Dunham.
Elmira.....	Elmira College.....		H. C. Mandeville.
Geneva.....	Hobart College.....	Douglas Merritt.....	P. N. Nicholas.
Hamilton.....	Colgate University.....	Sidney M. Colgate....	James C. Colgate.
Ithaca.....	Cornell University.....	Mynderse van Cleef...	Emmons L. Williams.
Keuka Park.....	Kenka College.....	Joseph A. Sevens.....	Charles A. Dowdell.
New Rochelle.....	College of New Rochelle.....		Edward J. McGuire.
New York.....	Barnard College.....	Silas B. Brownell....	Frederic B. Jennings.
Do.....	College of the City of New York.	Frederick P. Bellamy.	James W. Hyde.
Do.....	Columbia University.....	George L. Rives.....	John B. Pine.
Do.....	Fordham University.....	Thomas J. McCluskey, S. J.	Joseph T. Keating, S. J.
Do.....	Hunter College of the City of New York.	Thomas W. Churchill.	A. Emerson Palmer.
Do.....	Manhattan College.....	Brother Gerardus, F. S. C.	Brother Potamian, F. S. C.
Do.....	New York University.....	George Alexander.....	George A. Strong.
Do.....	Normal College of the City of New York.	Thos. W. Churchill...	A. Emerson Palmer.
Do.....	Teachers College.....	V. Everit Macy.....	Newbold Morris.

VIII.—OFFICERS OF BOARDS OF TRUSTEES OF UNIVERSITIES AND COLLEGES—CON.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
MICHIGAN—continued.			
Holland.....	Hope College.....	A. van den Berg.....	Gerrit J. Diekema.
Houghton.....	Michigan College of Mines.....	William Kelley.....	F. W. McNair.
Kalamazoo.....	Kalamazoo College.....	R. E. Olds.....	C. W. Oakley.
Olivet.....	Olivet College.....	James S. Williamson..	J. L. Harter.
MINNESOTA.			
Albert Lea.....	Albert Lea College.....	H. E. Skinner.....	John F. D. Meighen.
Collegeville.....	St. John's University.....	Herman Bergmann, O. S. B.....	Herbert Buerschinger. O. S. B.
Minneapolis.....	Augsburg Seminary.....	K. B. Birkeland.....	Fred Paulson.
Do.....	University of Minnesota.....	John Lind.....	George H. Hayes.
Northfield.....	Carleton College.....	David P. Jones.....	Harlan W. Page.
Do.....	St. Olaf College.....	S. H. Holstad.....	O. O. Erling.
St. Paul.....	Hamline University.....	Matthew G. Norton..	Joseph N. Hackney.
Do.....	Macalester College.....	Thomas Shaw.....	B. H. Schriber.
St. Peter.....	Gustavus Adolphus College....	A. A. Stomberg.....	C. Swanson.
MISSISSIPPI.			
Agricultural College....	Mississippi Agricultural and Mechanical College.	Hon. Earl Brewer.....	O. F. Lawrence.
Blue Mountain.....	Blue Mountain Female College	B. G. Lowrey.....	T. C. Lowrey.
Brookhaven.....	Whitworth Female College....	Thad. B. Lampton....	H. B. Watkins.
Clinton.....	Hillman College.....	W. T. Ratliff.....	W. A. McComb.
Do.....	Mississippi College.....	do.....	Do.
Columbus.....	Industrial Institute and Col- lege.	Hon. Earl Brewer.....	O. F. Lawrence.
French Camp.....	Central Mississippi Institute..	.....	.....
Grenada.....	Grenada College.....	J. R. Bingham.....	H. K. Barwick.
Holly Springs.....	Rust University (colored)....	John E. Anderson....	J. M. Shumpert.
Jackson.....	Bellhaven College for Young Ladies.	J. R. Dobyns.....	.....
Do.....	Millsaps College.....	W. B. Murruth.....	J. B. Streater.
Meridian.....	Meridian Male College.....	L. P. Brown.....	T. C. Harmon.
Do.....	Meridian Woman's College....	do.....	Do.
Pontotoc.....	Chickasaw Female College....	.....	.....
Port Gibson.....	Port Gibson Female College....	M. M. Satterfield....	T. B. Holloman.
University.....	University of Mississippi.....	Hon. Earl Brewer.....	O. F. Lawrence.
MISSOURI.			
Albany.....	Palmer College.....	J. W. Piper.....	E. A. Watkins.
Cameron.....	Missouri Wesleyan College....	J. O. Taylor.....	W. F. Burris.
Canton.....	Christian University.....	W. B. McRoberts....	Ed N. Cason.
Columbia.....	Christian College.....	D. A. Robnett.....	Mrs. L. W. St. Clair.
Do.....	Stephens College.....	W. W. Charters.....	J. E. Thornton.
Do.....	University of Missouri.....	David R. Francis....	J. G. Babb.
Fayette.....	Central College.....	John A. Rich.....	L. W. Jacobs.
Do.....	Howard Payne College.....	A. W. Walker.....	H. K. Givens.
Fulton.....	Westminster College.....	B. F. Edwards.....	B. H. Charles.
Do.....	Synodical Female College....	John F. Cowan.....	A. D. Smith.
Glasgow.....	Pritchett College.....	J. W. Southworth....	W. P. Pritchett.
Lexington.....	Central Female College.....	P. P. Lewis (acting)..	E. N. Hopkins.
Do.....	Lexington College for Young Women.	G. W. Hyde.....	H. C. Wallace.
Liberty.....	Liberty Ladies College.....	.....	.....
Do.....	William Jewell College.....	J. S. Major.....	J. E. Cook.
Marshall.....	Missouri Valley College.....	W. P. Stark.....	D. F. Manning.
Mexico.....	Hardin College.....	A. G. Turner.....	C. F. Clark.
Morrisville.....	Scarritt-Morrisville College..	Sim Beam.....	J. E. McDonald.
Nevada.....	Cottey College.....	F. H. Glenn.....	J. M. Hall.
Parkville.....	Park College.....	C. L. Brokaw.....	R. B. Elliott.
St. Charles.....	Lindenwood College for Wo- men.	S. J. Nicols.....	Henry P. Wyman.
St. Louis.....	Christian Brothers College....	Brother Emery, F. S. C.	Brother Peter, F. S. C.
Do.....	Forest Park University.....	.....	.....
Do.....	St. Louis University.....	Bernard J. Otting, S. J.	Matthew McManamy, S. J.
Do.....	Washington University.....	Robert S. Brookings..	Edmund A. Engler.
Springfield.....	Drury College.....	.....	G. W. Nonemacher.
Tarkio.....	Tarkio College.....	A. L. Davidson.....	John P. Stevenson.
Warrenton.....	Central Wesleyan College.....	Franz Piehler.....	D. W. Smith.
MONTANA.			
Bozeman.....	Montana College of Agricul- ture and Mechanic Arts.	Hon. S. V. Stewart....	H. A. Davee.
Butte.....	Montana State School of Mines.	Charles H. Bowman....	B. H. Dunshee.
Missoula.....	University of Montana.....	E. B. Craighead, ex. off.	J. D. Dunlop.

VIII.—OFFICERS OF BOARDS OF TRUSTEES OF UNIVERSITIES AND COLLEGES—(Con.)

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
NEBRASKA.			
Bellevue.....	Bellevue College.....	C. M. Wilhelm.....	G. G. Wallace.
Bethany.....	Cotner University.....	Jesse B. Strode.....	John H. Bicknell.
College View.....	Union College.....	R. A. Underwood.....	H. A. Morrison.
Crete.....	Doane College.....	Charles C. Smith.....	George W. Mitchell.
Grand Island.....	Grand Island College.....	I. W. Carpenter.....	Elias F. Starr.
Hastings.....	Hastings College.....	J. W. James.....	P. L. Johnson.
Lincoln.....	University of Nebraska.....	Charles S. Allen.....	James S. Dales.
Omaha.....	Crelghton University.....	F. X. McMenamy, S. J.	William P. Whelan, S. J.
Do.....	University of Omaha.....	Archie W. Carpenter..	W. T. Graham.
University Place.....	Nebraska Wesleyan Univer- sity.	A. L. Johnson.....	G. E. Currier.
York.....	York College.....	C. E. Sandall.....	J. W. Purinton.
NEVADA.			
Reno.....	State University of Nevada...	Hosea E. Reid.....	George H. Taylor.
NEW HAMPSHIRE.			
Durham.....	New Hampshire College of Ag- riculture and Mechanic Arts.	H. L. Boutwell.....	J. A. Tufts.
Hanover.....	Dartmouth College.....	Ernest Fox Nichols...	William Martin Chase.
Manchester.....	St. Anselm's College.....	Ernest Helmstetter, O. S. B.	Frederick Z winger, O. S. B.
NEW JERSEY.			
Convent Station.....	College of St. Elizabeth.....	John J. O'Connor.....	
Hoboken.....	Stevens Institute of Technol- ogy.	Alex. C. Humphreys..	Franklin B. Kirkbride.
Jersey City.....	St. Peter's College.....	Joseph A. Mulry, S. J.	James F. McDermott, S. J.
Kenilworth.....	Upsala College.....	Mauritz Stolpe.....	G. Olson.
New Brunswick.....	Rutgers College.....	William H. S. Dema- rest.	J. Preston Searle.
Princeton.....	Princeton University.....	John G. Hibban.....	Charles W. McAlpin.
South Orange.....	Seton Hall College.....	John J. O'Connor.....	James J. Sheehan.
NEW MEXICO.			
Albuquerque.....	University of New Mexico.....	George L. Brooks.....	J. A. Reidy.
Socorro.....	New Mexico School of Mines..	A. C. Torres.....	M. Cooney.
State College.....	New Mexico College of Agri- culture and Mechanic Arts.	James H. Paxton.....	M. O. Llewellyn.
NEW YORK.			
Albany.....	New York State College for Teachers.	John H. Finley.....	Samuel B. Ward.
Alfred.....	Alfred University.....	Vernon A. Baggs.....	D. S. Burdick.
Annadale.....	St. Stephen's College.....	David H. Greer.....	Edgerton Parsons.
Aurora.....	Wells College.....	N. Lansing Zabriskie..	Robert L. Zabriskie.
Brooklyn.....	Adelphi College.....	James K. Post.....	Herbert K. Twitchell.
Do.....	Polytechnic Institute of Brooklyn.	William H. Nichols...	Richard L. Russell.
Do.....	St. Francis College.....	Joseph O'Connell.....	Brother Stanislaus.
Do.....	St. John's College.....	John W. Moore, C. M..	E. L. Carey, C. M.
Buffalo.....	Canisius College.....	George J. Krim, S. J..	John J. Grene, S. J.
Canton.....	St. Lawrence University.....	Edward A. Merritt....	Frank E. Cleaveland.
Clinton.....	Hamilton College.....	Elihu Root.....	George E. Dunham.
Elmira.....	Elmira College.....		H. C. Mandeville.
Geneva.....	Hobart College.....	Douglas Merritt.....	P. N. Nicholas.
Hamilton.....	Colgate University.....	Sidney M. Colgate....	James C. Colgate.
Ithaca.....	Cornell University.....	Mynderse van Cleef...	Emmons L. Williams.
Keuka Park.....	Keuka College.....	Joseph A. Sevena.....	Charles A. Dowdell.
New Rochelle.....	College of New Rochelle.....		Edward J. McGuire.
New York.....	Barnard College.....	Silas B. Brownell....	Frederic B. Jennings.
Do.....	College of the City of New York.	Frederick P. Bellamy.	James W. Hyde.
Do.....	Columbia University.....	George L. Rives.....	John B. Pine.
Do.....	Fordham University.....	Thomas J. McCluskey, S. J.	Joseph T. Keating, S. J.
Do.....	Hunter College of the City of New York.	Thomas W. Churchill.	A. Emerson Palmer.
Do.....	Manhattan College.....	Brother Gerardus, F. S. C.	Brother Potamian, F. S. C.
Do.....	New York University.....	George Alexander.....	George A. Strong.
Do.....	Normal College of the City of New York.	Thos. W. Churchill...	A. Emerson Palmer.
Do.....	Teachers College.....	V. Everit Macy.....	Newbold Morris.

VIII.—OFFICERS OF BOARDS OF TRUSTEES OF UNIVERSITIES AND COLLEGES—Con.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
NEW YORK—continued.			
Niagara University.....	Niagara University.....	Charles H. Colton.....	Alonzo C. Baldwin.
Potsdam.....	Clarkson School of Technology.	George H. Sweet.....	Hugh A. Grant.
Poughkeepsie.....	Vassar College.....	W. C. P. Rhoades.....	Henry V. Pelton.
Rochester.....	University of Rochester.....	Lewis P. Ross.....	Charles M. Williams.
St. Bonaventure.....	St. Bonaventure's College.....	Anselm Kennedy, O. F. M.	Alexander M. Hickey, O. F. M.
Schenectady.....	Union University.....	Silas B. Brownell.....	Edgar S. Barney.
Syracuse.....	Syracuse University.....	John D. Archbold.....	DeWitt B. Thompson.
Troy.....	Rensselaer Polytechnic Institute.	Palmer C. Ricketts....	John Squires.
West Point.....	U. S. Military Academy.....	None.....	None.
NORTH CAROLINA.			
Belmont.....	St. Mary's College.....	Leo Haid, O. S. B....	F. Melchior, O. S. B.
Chapel Hill.....	University of North Carolina..	Hon. Locke Craig.....	R. D. W. Connor.
Charlotte.....	Biddle University (colored)...	R. P. Wyche.....	S. F. Wentz.
Do.....	Elizabeth College.....	Charles B. King.....	C. A. Miesenheimer.
Do.....	Queens College.....	A. A. McGeachy.....	A. G. Brenizer.
Davidson.....	Davidson College.....	W. L. Lingle.....	W. J. McKay.
Durham.....	Trinity College.....	J. H. Southgate.....	D. W. Newsom.
Elon College.....	Elon College.....	W. A. Harper, ex officio.	P. H. Fleming.
Greensboro.....	Greensboro Female College....	J. A. Long.....	Charles H. Ireland.
Guilford College.....	Guilford College.....	J. Elwood Cox.....	David White.
Hickory.....	Lenoir College.....	J. H. C. Huitt.....	James F. Deal.
Newton.....	Catawba College.....	S. L. Rhyne.....	J. B. Leonard.
Oxford.....	Oxford College.....	F. P. Hobgood.....	Thornton Yancey.
Raleigh.....	Meredith College.....	W. N. Jones.....	J. E. Ray.
Do.....	Peace Institute.....	James R. Young.....	George J. Ramsey.
Do.....	St. Mary's School.....	Joseph B. Cheshire....	K. P. Battle, jr.
Do.....	Shaw University (colored)....	D. G. Garabrant.....	W. S. Tanner.
Red Springs.....	Southern Presbyterian College.	A. W. McLean.....	John W. McLaughlin
Salisbury.....	Livingstone College (colored)..	J. W. Hood, D. D....	James E. Mason.
Wake Forest.....	Wake Forest College.....	John A. Oates.....	Carey J. Hunter.
Weaverville.....	Weaver College.....	F. M. Weaver.....	J. A. Nichols.
West Raleigh.....	North Carolina College of Agriculture and Mechanic Arts.	Hon. Locke Craig, ex officio.	C. W. Gold.
Winston-Salem.....	Salem Academy and College...	J. W. Fries.....	Howard E. Rondthaler.
NORTH DAKOTA.			
Agricultural College....	North Dakota Agricultural College.	C. E. Nugent.....	W. A. Yoder.
Fargo.....	Fargo College.....	Robert M. Pollock....	Edwin H. Stickney.
Jamestown.....	Grand Forks College.....	H. M. Taber.....	John Knauf.
University.....	University of North Dakota...	N. C. Young.....	James W. Wilkerson.
Do.....	Wesley College.....	Frank Lynch.....	John W. Ogren.
OHIO.			
Ada.....	Ohio Northern University....	S. A. Hopkins.....	E. C. Carey.
Akron.....	Buchtel College.....	P. R. Kolbe.....	C. R. Olin.
Alliance.....	Mount Union College.....	Walter M. Ellet.....	R. H. Carr.
Ashland.....	Ashland College.....	William Kolb, jr.....	A. D. Gnagey.
Athens.....	Ohio University.....	Alston Ellis.....	Israel M. Foster.
Berea.....	Baldwin-Wallace University..	Albert J. Nast.....	Dayton C. Miller.
Cedarville.....	Cedarville College.....	James H. Creswell....	Oscar E. Bradfute.
Cincinnati.....	St. Xavier College.....	Rev. Francis Heiermann.	Rev. George A. McGovern.
Do.....	University of Cincinnati.....	Rufus B. Smith.....	Daniel Laurence.
Cleveland.....	Case School of Applied Science.	John M. Henderson...	Eckstein Case.
Do.....	St. Ignatius College.....	John B. Furay, S. J...	Francis J. Haggency.
Do.....	Western Reserve University..	Charles F. Thwing....	John Dickerman.
Columbus.....	Capital University.....	C. F. W. Allwardt....	L. H. Burry.
Do.....	Ohio State University.....	Julius F. Stone.....	Carl E. Steeb.
Dayton.....	St. Mary's Institute.....	George Meyer.....	George N. Sauer.
Defiance.....	Defiance College.....	D. M. McCullough....	D. A. Snider.
Delaware.....	Ohio Wesleyan University....	David S. Gray.....	William G. Hormell.
Findlay.....	Findlay College.....	W. N. Yates.....	W. E. Turner.
Gambier.....	Kenyon College.....	Bishop Boyd Vincent.	Francis W. Blake.
Granville.....	Denison University.....	George M. Peters.....	J. R. Davies.
Hiram.....	Hiram College.....	Frederick A. Henry...	James O. Newcomb.
Lebanon.....	Lebanon University.....	P. V. Bone.....	V. S. Loer.
Marietta.....	Marietta College.....	G. W. Hinman.....	W. W. Mills.
New Athens.....	Franklin College.....	R. G. Campbell.....	R. O. Stonebraker.
New Concord.....	Muskingum College.....	S. E. Martin.....	W. J. Grimes.
Oberlin.....	Oberlin College.....	Henry C. King.....	George M. Jones.

VIII.—OFFICERS OF BOARDS OF TRUSTEES OF UNIVERSITIES AND COLLEGES—Con.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
OHIO—continued.			
Oxford.....	Miami University.....	Walter L. Tobey..	G.
Do.....	Oxford College for Women.....	Jane Sherzer.....	W.
Do.....	Western College for Women.....	J. S. Crowell.....	M.
Patnesville.....	Lake Erie College.....	James R. Garfield.....	P.
Rio Grande.....	Rio Grande College.....	Benner Jones.....	Jo.
Springfield.....	Wittenberg College.....	E. W. Simon.....	A.
Tiffin.....	Heidelberg University.....	George F. Baries.....	J.
Toledo.....	St. John's University.....	John A. Wisand, S. J.....	W.
Do.....	Toledo University.....	William H. Tucker.....	L.
Westerville.....	Otterbein University.....	G. A. Lambert.....	E.
West Lafayette.....	West Lafayette College.....	J. F. Cappel.....	E.
Wilberforce.....	Wilberforce University (colored).	C. T. Shaffer.....	H.
Wilmington.....	Wilmington College.....	David E. Dunham.....	Lorena Farquhar.
Wooster.....	University of Wooster.....	O. A. Hills.....	Jesse McClellan.
Yellow Springs.....	Antioch College.....	S. D. Fess.....	Pearl M. Stewart.
OKLAHOMA.			
Guthrie.....	Methodist University of Oklahoma.	H. B. Collins.....	H. C. Case.
Kingfisher.....	Kingfisher College.....	J. H. Parker.....	George H. Laing.
Norman.....	University of Oklahoma.....	R. H. Wilson.....	Leslie T. Huffman.
Stillwater.....	Oklahoma Agricultural and Mechanical College.	G. T. Bryan.....	Benj. F. Hennessey.
Tulsa.....	Henry Kendall College.....	Ralph J. Lamb.....	R. F. Pettus.
Waburton.....	Oklahoma School of Mines and Metallurgy	R. H. Wilson.....	Leslie T. Huffman.
OREGON			
Albany.....	Albany College.....	Frank J. Miller.....	William Fortmiller.
Corvallis.....	Oregon Agricultural College.....	J. K. Weatherford.....	E. E. Wilson.
Dallas.....	Dallas College.....	Charles C. Poling.....	A. W. Teats.
Eugene.....	University of Oregon.....	R. S. Bean.....	L. H. Johnson.
Forest Grove.....	Pacific University.....	B. S. Huntington.....	Napoleon Davis.
McMinnville.....	McMinnville College.....	B. F. Rhodes.....	Walter P. Dyke.
Newberg.....	Pacific College.....	Ezra H. Woodward.....	Evangelina Martin.
Philomath.....	Philomath College.....	F. W. Jones.....	G. E. McDonald.
Portland.....	Reed College.....	Thomas L. Eliot.....	William P. Olds.
Salem.....	Willamette University.....	T. S. McDaniel.....	J. H. van Winkle.
PENNSYLVANIA.			
Allentown.....	Allentown College for Women.	Webster Grinn.....	F. H. Moyer.
Do.....	Muhlenberg College.....	Reuben J. Buts.....	W. D. C. Ketter.
Annville.....	Lebanon Valley College.....	A. B. Statton.....	W. H. Weaver.
Beatty.....	St. Vincent College.....	Leander Schnerr, O. S. B.	Gerard Bridge, O. S. B.
Beaver.....	Beaver College.....	W. F. Connor.....	Robert Darragh.
Beaver Falls.....	Geneva College.....	R. C. Wylle.....	R. H. Martin.
Bethlehem.....	Moravian College.....	Charles L. Moench.....	Albert G. Rau.
Do.....	Moravian Seminary and College for Women.	Abraham S. Schropp.	E. A. Rau.
Blairsville.....	Blairsville College.....	James Wood.....	Anna Rhoads Ladd.
Bryn Mawr.....	Bryn Mawr College.....	E. W. Biddle.....	Charles W. Straw.
Carlisle.....	Dickinson College.....	J. Ritchie Smith.....	Thomas J. Breton.
Chambersburg.....	Wilson College.....	John Wanamaker.....	O. B. Dickinson.
Chester.....	Pennsylvania Military College.	H. E. Paisley.....	S. L. Messinger.
Collegeville.....	Ursinus College.....	John W. Hollenback.....	Charles B. Green.
Easton.....	Lafayette College.....	John F. Dapp.....	H. C. Picking.
Gettysburg.....	Pennsylvania College.....	W. E. Frey.....	Ira M. Wallace.
Greenville.....	Thiel College.....	F. R. Babcock.....	William S. McKay.
Grove City.....	Grove City College.....	T. Wistar Brown.....	Charles J. Rhoades.
Haverford.....	Haverford College.....	H. B. Brumbaugh.....	J. A. Myers.
Huntingdon.....	Juniata College.....	William U. Hensel.....	George F. Mull.
Lancaster.....	Franklin and Marshall College.	Harry S. Hopper.....	A. J. Rowland.
Lewisburg.....	Bucknell University.....	John B. Rendall.....	William C. Robinson.
Lincoln University.....	Lincoln University (colored).	Frank A. Arter.....	James P. Colter.
Meadville.....	Allegheny College.....	A. R. Steck.....	Charles R. Trowbridge.
Mechanicsburg.....	Irving Female College.....	W. E. Detweiler.....	J. H. Shiley.
Myerstown.....	Albright College.....	A. R. Robinson.....	W. T. Pierce.
New Wilmington.....	Westminster College.....	Cyrus Adler.....	Ephraim Lederer.
Philadelphia.....	Dropsie College.....	Archbishop Prendergast.	Brother D. Aloysius.
Do.....	La Salle College.....	Russell H. Conwell.....	George A. Welsh.
Do.....	Temple University.....	Edgar F. Smith.....	Edward Robins.
Do.....	University of Pennsylvania.....		

VIII.—OFFICERS OF BOARDS OF TRUSTEES OF UNIVERSITIES AND COLLEGES—Con.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
PENNSYLVANIA—contd.			
Pittsburgh.....	Carnegie Institute of Technology.	William McConway....	W. Lucien Scaffo.
Do.....	Duquesne University of the Holy Ghost.	J. R. F. Canevin.....	John E. Kane.
Do.....	Pennsylvania College for Women.	Oliver McClintock....	William H. Rea.
Do.....	University of Pittsburgh.....	George H. Clapp.....	Samuel B. Linhart.
Selinsgrove.....	Susquehanna University.....	W. S. Owen.....	R. L. Schroyer.
South Bethlehem.....	Lehigh University.....	Henry R. Price.....	Warren A. Wilbur.
State College.....	Pennsylvania State College.....	H. Walton Mitchell...	Edwin E. Sparks.
Swarthmore.....	Swarthmore College.....	Isaac H. Clothier.....	Howard C. Johnson.
Villanova.....	Villanova College.....	N. J. Murphy, O. S. B.	T. C. Middleton, O. S. A.
Washington.....	Washington and Jefferson College.	John A. McIlvaine....	James I. Brownson.
Waynesburg.....	Waynesburg College.....	James Inghram.....	J. W. Ray.
PORTO RICO.			
San Juan.....	University of Porto Rico.....	Edward M. Bainter...	Henry B. Moore.
RHODE ISLAND.			
Kingston.....	Rhode Island State College....	Walter E. Ranger.....	Robert S. Burlingame.
Providence.....	Brown University.....	William H. P. Faunce.	John C. B. Woods.
SOUTH CAROLINA.			
Charleston.....	College of Charleston.....	John F. Ficken.....	Arthur Mazýck.
Do.....	South Carolina Military Academy.	C. S. Gadsden.....	J. E. Smith.
Clemson College.....	Clemson Agricultural College..	Alan Johnstone.....	Samuel W. Evans.
Clinton.....	Presbyterian College of South Carolina	Alexander Martin.....	A. E. Spencer.
College Place.....	Columbia College.....	E. O. Watson.....	A. N. Brunson.
Columbia.....	Allen University (colored)....	L. J. Coppin.....	Greene Jackson.
Do.....	Benedict College (colored)....	Charles L. White.....	B. W. Valentine.
Do.....	College for Women.....	Cyrus H. Baldwin....	C. C. Wilson.
Do.....	University of South Carolina..	Hon. Cole. L. Blease..	Sarah F. Fickling.
Due West.....	Erskine College.....	J. P. Knox.....	G. G. Parkinson.
Do.....	Woman's College of Due West.		
Greenville.....	Chicora College.....	C. E. Graham.....	S. C. Byrd.
Do.....	Furman University.....	Charles A. Smith.....	A. G. Furman.
Do.....	Greenville Female College.....	B. M. Shuman.....	B. F. Martin.
Greenwood.....	Lander College.....	George W. Sullivan...	Andrew J. Cauthen.
Hartsville.....	Coker College for Women.....	James L. Coker.....	J. J. Lawton.
Newberry.....	Newberry College.....	George B. Cromer.....	James D. Kinard.
Orangeburg.....	Claffin University (colored)...	J. E. Wilson.....	C. C. Jacobs.
Spartanburg.....	Converse College.....	J. B. Cleveland.....	H. L. Bomar.
Do.....	Wofford College.....	J. Lyles Glenn.....	James W. Kilgo.
SOUTH DAKOTA.			
Brookings.....	South Dakota State College of Agriculture and Mechanic Arts.	T. W. Dwight.....	
Huron.....	Huron College.....	E. L. Abel.....	H. P. Carson.
Mitchell.....	Dakota Wesleyan University..	S. E. Morris.....	Lewis Shuster.
Rapid City.....	State School of Mines.....	A. E. Hitchcock.....	George Barnett.
Redfield.....	Redfield College.....	M. E. Eversz.....	A. Loomis.
Sioux Falls.....	Sioux Falls College.....	S. P. Shaw.....	G. A. Godfrey.
Vermilion.....	University of South Dakota...	A. E. Hitchcock.....	George Barnett.
Yankton.....	Yankton College.....	H. K. Warren.....	Albert L. Lee.
TENNESSEE.			
Bristol.....	King College.....	John H. Caldwell.....	C. S. Hedrick.
Chattanooga.....	University of Chattanooga....	H. S. Chamberlain....	H. C. Beck.
Clarksville.....	Southwestern Presbyterian University.	W. McF. Alexander...	M. Savage.
Cumberland Gap.....	Lincoln Memorial University..	George A. Hubbell....	J. H. S. Morison.
Gallatin.....	Howard College for Young Ladies.		
Greeneville.....	Tusculum College.....	Henry R. Brown.....	E. J. Baxter.
Jackson.....	Memphis Conference Female Institute.	W. D. Jenkins.....	Alva W. Taylor.
Do.....	Union University.....	O. C. Barton.....	A. M. Alexander.
Jefferson City.....	Carson-Newman College.....	J. Pike Powers.....	J. N. Ellis.
Knoxville.....	Knoxville College (colored)...	D. A. McClenahan....	J. W. Witherspoon.
Do.....	University of Tennessee.....	Brown Ayres.....	William Rule.
Lebanon.....	Cumberland University.....	A. B. Martin.....	A. W. Hooker.

VIII.—OFFICERS OF BOARDS OF TRUSTEES OF UNIVERSITIES AND COLLEGES—Con.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
TENNESSEE—contd.			
McKenzie.....	Bethel College.....	J. G. Anderson.....	J. W. Smith.
Maryville.....	Maryville College.....	Edgar A. Elmore.....	Fred L. Proffitt.
Memphis.....	Christian Brothers College.....	Brother Edward.....	Brother Idephonsus.
Milligan.....	Milligan College.....	C. C. Taylor.....	George W. Hardin.
Murfreesboro.....	Tennessee College.....	C. H. Byrn.....	John Williams.
Nashville.....	Boscobel College.....	W. M. Lunsford.....	William Hume.
Do.....	Fisk University (colored).....	Paul D. Cravath.....	C. J. Ryder.
Do.....	Vanderbilt University.....	W. C. Ratcliffe.....	Whiteford R. Cole.
Do.....	Walden University (colored).....	John M. Walden.....	George W. Hubbard.
Rogersville.....	Rogersville Synodical College.....	Hugh G. Kyle.....	A. B. Rogan.
Sewanee.....	University of the South.....	T. F. Gailer.....	James G. Glass.
Spencer.....	Burritt College.....	W. S. Graves.....	J. Logan Molloy.
Washington College.....	Washington College.....	James T. Cooter.....	J. W. Whitlock.
TEXAS.			
Abilene.....	Simmons College.....	K. K. Legett.....	G. B. Paxton.
Austin.....	University of Texas.....	F. W. Cook.....	E. J. Mathews.
Belton.....	Baylor Female College.....	W. C. Lattimore.....	C. B. Smith.
Bonham.....	Carlton College.....	.....	.....
Brownwood.....	Howard Payne College.....	T. C. Yantis.....	J. L. King.
College Station.....	Agricultural and Mechanical College of Texas.....	E. B. Cushing.....	Isaac S. Ashburn.
Fort Worth.....	Polytechnic College.....	Jno. A. Rice.....	Ocle Speer.
Do.....	Texas Christian University.....	T. E. Tomlinson.....	E. M. Waite.
Georgetown.....	Southwestern University.....	W. D. Bradfield.....	R. G. Mood.
Houston.....	Rice Institute.....	.....	.....
San Antonio.....	St. Louis College.....	.....	.....
Sherman.....	Austin College.....	W. M. Anderson.....	S. J. McMurry.
Do.....	North Texas Female College.....	.....	.....
South Houston.....	Asgard College.....	.....	.....
Tehuacana.....	Westminster College.....	W. M. Moody.....	J. C. Williams.
Waco.....	Baylor University.....	Pat M. Neff.....	W. H. Jenkins.
Do.....	Paul Quinn College (colored).....	C. S. Smith, D. D.....	H. D. Winn.
Waxahachie.....	Trinity University.....	F. N. Drano.....	H. L. Williamson.
UTAH.			
Logan.....	Agricultural College of Utah.....	Lorenzo N. Stohl.....	John L. Coburn.
Salt Lake City.....	University of Utah.....	W. W. Ritter.....	D. R. Allen.
VERMONT.			
Burlington.....	University of Vermont and State Agricultural College.....	Guy P. Benton.....	Edmund C. Mower.
Middlebury.....	Middlebury College.....	John M. Thomas.....	John A. Fletcher.
Northfield.....	Norwich University.....	Charles H. Spooner.....	William A. Shaw.
VIRGINIA.			
Abingdon.....	Martha Washington College.....	M. H. Honaker.....	L. T. Cosby.
Do.....	Stonewall Jackson College.....	J. A. Buchanan.....	D. A. Preston.
Ashland.....	Randolph-Macon College.....	E. D. Newman.....	W. W. Vicar.
Blacksburg.....	Virginia Agricultural and Mechanical College and Polytechnic Institute.....	J. Thompson Brown.....	Charles I. Wade.
Bridgewater.....	Bridgewater College.....	Hiram G. Miller.....	Sidney L. Bowman.
Bristol.....	Virginia Intermont College.....	John R. Dickey.....	S. C. Hodges.
Do.....	Sullins College Conservatory.....	A. D. Reynolds.....	T. F. Staley.
Charlottesville.....	University of Virginia.....	A. C. Gordon.....	E. I. Carruthers.
Danville.....	Roanoke Institute of Danville.....	P. W. Ferrell.....	H. L. Boatwright.
Emory.....	Emory and Henry College.....	M. H. Honaker.....	G. E. Penn.
Hampden Sidney.....	Hampden-Sidney College.....	A. B. Dickinson.....	F. T. McFaden.
Hollins.....	Hollins College.....	Lucian H. Cooke.....	M. Estes Cocke.
Lexington.....	Virginia Military Institute.....	R. A. James.....	L. E. Steele.
Do.....	Washington and Lee University.....	William A. Anderson.....	Paul M. Penick.
Lynchburg.....	Randolph-Macon Woman's College.....	E. D. Newman.....	S. C. Hatcher.
Do.....	Virginia Christian College.....	Richie Ware.....	W. G. Shackelford.
Manassas.....	Eastern College.....	Hervin U. Roop.....	Thomas H. Lion.
Richmond.....	Richmond College.....	J. Taylor Ellyson.....	William C. James.
Do.....	Virginia Union University (colored).....	Henry L. Morehouse.....	.....
Do.....	Woman's College.....	.....	.....
Roanoke.....	Roanoke Woman's College.....	R. W. Kime.....	Charles K. Hunton.
Do.....	Virginia College.....	.....	.....
Salem.....	Roanoke College.....	Henry S. Trout.....	Robert W. Kime.
Sweet Briar.....	Sweet Briar College.....	A. M. Randolph.....	Arthur P. Gray.
Williamsburg.....	College of William and Mary.....	Robert M. Hughes.....	L. W. Lane, jr.

VIII.—OFFICERS OF BOARDS OF TRUSTEES OF UNIVERSITIES AND COLLEGES—CON.

Location.	University or college.	President of board of trustees.	Secretary of board of trustees.
WASHINGTON.			
Pullman.....	State College of Washington....	J. C. Cunningham.....	E. A. Bryan.
Seattle.....	University of Washington.....	Oscar A. Fechter.....	William Markham.
Spokane.....	Gonzaga University.....	James M. Brogan, S. J.	Paul P. Sauer, S. J.
Do.....	Spokane College.....	B. M. Branford.....	P. O. Floan.
Tacoma.....	University of Puget Sound....	E. L. Blaine.....	Dix H. Rowland.
Do.....	Whitworth College.....	Murdock McLeod.....	Henry Longstreth.
Walla Walla.....	Whitman College.....	George H. Turner.....	Dorsey M. Hill.
WEST VIRGINIA.			
Barboursville.....	Morris Harvey College.....	M. W. Thomas.....	G. W. Harshbarger.
Bethany.....	Bethany College.....	Thomas E. Cramblet..	M. V. Danford.
Buckhannon.....	West Virginia Wesleyan Col- lege.	Charles W. Lynch.....	John A. Barnes.
Charlestown.....	Powhatan College.....	.....	.....
Elkins.....	Davis and Elkins College.....	H. G. Davis.....	Frederick H. Barron.
Morgantown.....	West Virginia University.....	M. P. Shawkey.....	J. F. Marsh.
WISCONSIN.			
Appleton.....	Lawrence College.....	L. M. Alexander.....	Herman Saecker.
Beloit.....	Beloit College.....	Edward D. Eaton.....	Edward B. Kilbourn.
Madison.....	University of Wisconsin.....	James F. Trotman....	M. E. McCaffrey.
Milton.....	Milton College.....	Fred C. Dunn.....	Allen B. West, sr.
Milwaukee.....	Concordia College.....	William Matthes.....	B. Sievers.
Do.....	Marquette University.....	Joseph Grimmelman, S. J.	James D. Foley, S. J.
Do.....	Milwaukee-Downer College....	W. W. Wight.....	George L. Graves.
Plymouth.....	Mission House.....	H. C. Nott.....	E. A. Hofer.
Ripon.....	Ripon College.....	Silas Evans.....	Samuel M. Pedrick.
Watertown.....	Northwestern College.....	C. E. Bergemann.....	H. Machmueller.
Waukesha.....	Carroll College.....	William W. Perry....	Henry W. Phelps.
WYOMING.			
Laramie.....	University of Wyoming.....	T. F. Burke.....	F. S. Burrage.

IX.—UNIVERSITY AND COLLEGE PRESIDENTS.

Location.	University or college.	For men, for women, or coedu- cational.	Name of president.
ALABAMA.			
Athens.....	Athens Female College.....	Women.	Mary N. Moore, B. L.
Auburn.....	Alabama Polytechnic Institute....	Coed....	Charles C. Thach, LL. D.
Birmingham.....	Birmingham College.....	Coed....	John D. Simpson, D. D.
Do.....	Howard College.....	Coed....	James M. Shelburne, D. D.
Greensboro.....	Southern University.....	Coed....	Charles A. Rush, D. D.
Marion.....	Judson College.....	Women.	Paul V. Bomar, D. D.
Montgomery.....	Woman's College of Alabama.....	Women.	William E. Martin, Ph. D.
St. Bernard.....	St. Bernard College.....	Men.....	Bernard Menges, O. S. B.
Spring Hill.....	Spring Hill College.....	Men.....	Edward Cummings, S. J.
Tuscaloosa.....	Central Female College.....	Women.	B. F. Giles, A. M.
University.....	University of Alabama.....	Coed....	George H. Denny, LL. D.
ARIZONA.			
Tucson.....	University of Arizona.....	Coed....	Rufus B. von Klein Smid, A. M.
ARKANSAS.			
Arkadelphia.....	Henderson-Brown College.....	Coed....	Geo. H. Crowell.
Do.....	Ouachita College.....	Coed....	Samuel Y. Jamerson, LL. D.
Batesville.....	Arkansas College.....	Coed....	J. P. Robertson, D. D.
Clarksville.....	Arkansas Cumberland College....	Coed....	L. J. Spence.
Conway.....	Central College.....	Women.	John W. Conger, LL. D.
Do.....	Hendrix College.....	Coed....	John H. Reynolds, LL. D.
Fayetteville.....	University of Arkansas.....	Coed....	John C. Futrall, A. M.
Little Rock.....	Philander Smith College (colored).	Coed....	J. M. Cox, D. D.

IX.—UNIVERSITY AND COLLEGE PRESIDENTS—Continued.

Location.	University or college.	For men, for women, or coedu- cational.	Name of president.
CALIFORNIA.			
Berkeley.....	University of California.....	Coed....	Benj. Ide Wheeler, LL. D.
Claremont.....	Pomona College.....	Coed....	James A. Blaisdell, D. D.
Los Angeles.....	Occidental College.....	Coed....	John W. Baer, LL. D.
Do.....	University of Southern California.....	Coed....	George F. Bovard, LL. D.
Mills College.....	Mills College.....	Women..	Luella Clay Carson, LL. D.
Oakland.....	St. Mary's College.....	Men.....	Brother Vellesian, F. S. C.
Pasadena.....	Throop College of Technology.....	Men.....	James A. B. Scherer, LL. D.
San Francisco.....	St. Ignatius University.....	Men.....	Albert F. Trivelli, S. J.
San Jose.....	College of the Pacific.....	Coed....	John L. Seaton, Ph. D.
Santa Clara.....	University of Santa Clara.....	Men.....	Walter Thornton, S. J.
Stanford University.....	Leland Stanford Junior University.....	Coed....	John C. Branner, LL. D.
Whittier.....	Whittier College.....	Coed....	Thomas Newlin, Ph. M.
COLORADO.			
Boulder.....	University of Colorado.....	Coed....	Livingston Farrand, LL. D.
Colorado Springs.....	Colorado College.....	Coed....	William F. Slocum, LL. D.
Denver.....	College of the Sacred Heart.....	Men.....	J. J. Brown, S. J.
Fort Collins.....	Colorado Agricultural College.....	Coed....	Chas. A. Lory, LL. D.
Golden.....	State School of Mines.....	Men.....	William G. Haldane, Sc. D., act- ing.
Greeley.....	State Teachers College of Colorado.....	Coed....	Zachariah X. Snyder.
Montclair.....	Colorado Woman's College.....	Women..	J. P. Treat, A. M.
University Park.....	University of Denver.....	Coed....	Henry A. Buchtel, LL. D., chan- cellor.
Westminster.....	Westminster College.....	Coed....	R. M. Donaldson, D. D.
CONNECTICUT.			
Hartford.....	Trinity College.....	Men.....	Flavel S. Luther, LL. D.
Middletown.....	Wesleyan University.....	Men.....	William A. Shanklin, LL. D.
New Haven.....	Yale University.....	Men.....	Arthur T. Hadley, LL. D.
New London.....	Connecticut College for Women...	Women..	Frederick H. Sykes, Ph. D.
Storrs.....	Connecticut Agricultural College..	Coed....	Charles L. Beach, B. S.
DELAWARE.			
Newark.....	Delaware College.....	Coed....	Samuel C. Mitchell, Ph. D.
DISTRICT OF COLUMBIA.			
Washington.....	Catholic University of America....	Men.....	Thomas J. Shahan, S. T. D., rector.
Do.....	Gallaudet College.....	Coed....	Percival Hall, M. A.
Do.....	Georgetown University.....	Men.....	Alphonsus J. Donlon, S. J.
Do.....	George Washington University.....	Coed....	Charles H. Stockton, LL. D.
Do.....	Howard University (colored).....	Coed....	Stephen M. Newman, D. D.
Do.....	St. John's College.....	Men.....	Brother Alfred, F. S. C.
Do.....	Trinity College.....	Women..	Sister Catherine Aloysius, S.N.D.
FLORIDA.			
Deland.....	John B. Stetson University.....	Coed....	Lincoln Hulley, LL. D.
Gainesville.....	University of Florida.....	Men....	Albert A. Murphree, LL. D.
Sutherland.....	Southern College.....	Coed....	R. H. Alderman.
Tallahassee.....	Florida State College for Women..	Women..	Edward Conradi, Ph. D.
Winter Park.....	Rollins College.....	Coed....	Wm. F. Blackman, LL. D.
GEORGIA.			
Athens.....	University of Georgia.....	Men.....	David C. Barrow, LL. D., chan- cellor.
Atlanta.....	Morehouse College (colored).....	Men.....	John Hope, A. M.
Do.....	Atlanta University (colored).....	Coed....	Edward T. Ware, A. B.
Do.....	Georgia School of Technology.....	Men.....	Kenneth G. Matheson, LL. D.
Do.....	Morris Brown University (colored)	Coed....	William A. Fountain, D. D.
College Park.....	Cox College.....	Women..	William S. Cox.
Cuthbert.....	Andrew College.....	Women..	J. W. Malone, D. D.
Dahlonega.....	North Georgia Agricultural College	Coed....	Gustavus R. Glenn, LL. D.
Decatur.....	Agnes Scott College.....	Women..	F. H. Gaines, LL. D.
Demorest.....	Piedmont College.....	Coed....	Frank E. Jenkins, D. D.
Forsyth.....	Bessie Tift College.....	Women..	C. H. S. Jackson, LL. D.
Gainesville.....	Breneau College.....	Women..	Haywood J. Pearce, Ph. D.
Lagrange.....	Lagrange Female College.....	Women..	Rufus W. Smith, A. M.
Do.....	Southern Female College.....	Women..	James E. Ricketson, B. S.

IX.—UNIVERSITY AND COLLEGE PRESIDENTS—Continued.

Location.	University or college.	For men, for women, or coedu- cational.	Name of president.
GEORGIA—continued.			
Macon.....	Mercer University.....	Men.....	W. L. Pickard, LL. D.
Do.....	Wesleyan Female College.....	Women.....	C. R. Jenkins, D. D.
Oxford.....	Emory College.....	Men.....	James E. Dickey, D. D.
Rome.....	Shorter College.....	Women.....	A. W. Van Hoose.
South Atlanta.....	Clark University (colored).....	Coed.....	Wm. W. Foster, D. D.
HAWAII.			
Honolulu.....	College of Hawaii.....	Coed.....	Arthur L. Dean, Ph. D.
IDAHO.			
Caldwell.....	College of Idaho.....	Coed.....	William J. Boone, D. D.
Moscow.....	University of Idaho.....	Coed.....	Melvin A. Brannon, Ph. D.
ILLINOIS.			
Abingdon.....	Hedding College.....	Coed.....	Walter D. Agnew, D. D.
Aledo.....	William and Vashti College.....	Coed.....	Ward L. Ray, A. M., acting.
Bloomington.....	Illinois Wesleyan University.....	Coed.....	Theodore Kemp, LL. D.
Bourbonnais.....	St. Viator's College.....	Men.....	John P. O'Mahoney, C. S. V.
Carlinville.....	Blackburn College.....	Coed.....	Wm. M. Hudson, D. D.
Carthage.....	Carthage College.....	Coed.....	Harvey D. Hoover, Ph. D.
Chicago.....	Armour Institute of Technology.....	Men.....	Frank W. Gunsaulus, LL. D.
Do.....	De Paul University.....	Men.....	F. X. McCabe, LL. D.
Do.....	Lewis Institute.....	Coed.....	George N. Carman, A. M., di- rector.
Do.....	Loyola University.....	Men.....	John L. Mathery, S. J.
Do.....	University of Chicago.....	Coed.....	Harry Pratt Judson, LL. D.
Decatur.....	James Millikin University.....	Coed.....	George E. Fellows, LL. D.
Eureka.....	Eureka College.....	Coed.....	H. O. Fritchard.
Evanston.....	Northwestern University.....	Coed.....	Abram W. Harris, LL. D.
Ewing.....	Ewing College.....	Coed.....	E. L. Carr, D. D.
Galesburg.....	Knox College.....	Coed.....	Thomas McClelland, LL. D.
Do.....	Lombard College.....	Coed.....	Huber W. Hurt, LL. D.
Greenville.....	Greenville College.....	Coed.....	Eldon Grant Burritt, A. M.
Jacksonville.....	Illinois College.....	Coed.....	Charles H. Rammelkamp, Ph. D.
Do.....	Illinois Woman's College.....	Women.....	Joseph R. Harker, Ph. D.
Knoxville.....	St. Mary's School.....	Women.....	C. W. Leffingwell, D. D., rector.
Lake Forest.....	Lake Forest College.....	Coed.....	John S. Nollen, LL. D.
Lebanon.....	McKendree College.....	Coed.....	John F. Harmon, D. D.
Lincoln.....	Lincoln College.....	Coed.....	James H. McMurray, Ph. D.
Monmouth.....	Monmouth College.....	Coed.....	Thos. H. McMichael, D. D.
Mount Carroll.....	Frances Shimer School.....	Women.....	Wm. P. McKee, A. M.
Naperville.....	Northwestern College.....	Coed.....	Lawrence H. Seager, D. D.
Quincy.....	St. Francis Solanus College.....	Men.....	Fortunatus Hausser, O. F. M.
Rockford.....	Rockford College.....	Women.....	Julia H. Gulliver, LL. D.
Rock Island.....	Augustana College.....	Coed.....	Gustaf A. Andreen, Ph. D.
Upper Alton.....	Shurtleff College.....	Coed.....	George M. Potter, A. M.
Urbana.....	University of Illinois.....	Coed.....	Edmund J. James, LL. D.
Wheaton.....	Wheaton College.....	Coed.....	Charles A. Blanchard, D. D.
INDIANA.			
Bloomington.....	Indiana University.....	Coed.....	William L. Bryan, LL. D.
Collegeville.....	St. Joseph's College.....	Men.....	H. W. Lear, C. P. S.
Crawfordsville.....	Wabash College.....	Men.....	Geo. Lewes Mackintosh, D. D.
Earlham.....	Earlham College.....	Coed.....	Robert L. Kelly, LL. D.
Fort Wayne.....	Concordia College.....	Men.....	Martin Luecke.
Franklin.....	Franklin College.....	Coed.....	Elijah A. Hanley, D. D.
Goshen.....	Goshen College.....	Coed.....	John E. Hartzler, B. D.
Greencastle.....	De Pauw University.....	Coed.....	George R. Grose, D. D.
Hanover.....	Hanover College.....	Coed.....	William A. Millis, LL. D.
Indianapolis.....	Butler College.....	Coed.....	Thomas C. Howe, Ph. D.
Do.....	Indiana Central University.....	Coed.....	Lewis D. Bonebrake, LL. D.
Lafayette.....	Purdue University.....	Coed.....	Winthrop E. Stone, LL. D.
Merom.....	Union Christian College.....	Coed.....	Daniel A. Long, LL. D.
Moore's Hill.....	Moore's Hill College.....	Coed.....	Harry A. King, D. D.
Notre Dame.....	St. Mary's College and Academy.....	Women.....	Mother M. Pauline.
Do.....	University of Notre Dame.....	Men.....	John Cavanaugh, C. S. C., D. D.
Oakland City.....	Oakland City College.....	Coed.....	Wm. P. Dearing.
St. Meinrad.....	St. Meinrad College.....	Men.....	A. Schmitt, O. S. B.
Terre Haute.....	Rose Polytechnic Institute.....	Men.....	Carl L. Mees, Ph. D.
Upland.....	Taylor University.....	Coed.....	Monroe Vayhinger, D. D.
Valparaiso.....	Valparaiso University.....	Coed.....	Henry B. Brown, A. M.
Vincennes.....	Vincennes University.....	Coed.....	William Halnon, A. M.

IX.—UNIVERSITY AND COLLEGE PRESIDENTS—Continued.

Location.	University or college.	For men, for women, or coedu- cational	Name of president.
IOWA.			
Ames.....	Iowa State College of Agriculture and Mechanic Arts.	Coed....	Raymond A. Pearson, LL. D.
Cedar Falls.....	Iowa State Teachers College.....	Coed....	Homer H. Seerley, LL. D.
Cedar Rapids.....	Coe College.....	Coed....	John A. Marquis, LL. D.
Clinton.....	Wartburg College.....	Men.....	John Fritschel.
Decorah.....	Luther College.....	Men.....	C. K. Prens, B. A.
Des Moines.....	Des Moines College.....	Coed....	John A. Earl, D. D.
Do.....	Drake University.....	Coed....	Hill M. Bell, LL. D.
Dubuque.....	Dubuque College.....	Men.....	Daniel M. Gorman, LL. D.
Fairfield.....	Parsons College.....	Coed....	L..... D.
Fayette.....	Upper Iowa University.....	Coed....	R..... t. D.
Grinnell.....	Grinnell College.....	Coed....	Jo.....)
Hopkinton.....	Lenox College.....	Coed....	E.....
Indianola.....	Simpson College.....	Coed....	Ph..... Ph. D.
Iowa City.....	State University of Iowa.....	Coed....	T..... Ph. D.
Iowa Falls.....	Ellsworth College.....	Coed....	Id.....
Larson.....	Graceland College.....	Coed....	S.....
Mount Pleasant.....	Iowa Wesleyan College.....	Coed....	E.....
Mount Vernon.....	Cornell College.....	Coed....	T.....
Oscalossa.....	Penn College.....	Coed....	D..... D.
Pella.....	Central University of Iowa.....	Coed....	Jo.....
Sioux City.....	Morningside College.....	Coed....	A.....
Storm Lake.....	Duane Vista College.....	Coed....	R.....
Tabor.....	Tabor College.....	Coed....	N.....
Toledo.....	Leander Clark College.....	Coed....	M.....
University Park.....	Central Holiness University.....	Coed....	G..... D. D.
KANSAS.			
Atchison.....	Midland College.....	Coed....	Rufus D. Peery, D. D.
Do.....	St. Benedict's College.....	Men.....	Innocent Wolf, O. S. B., D. D.
Baldwin.....	Baker University.....	Coed....	Wilbur N. Mason, D. D.
Emporia.....	College of Emporia.....	Coed....	Henry Coe Culbertson, D. D.
Highland.....	Highland College.....	Coed....	W. Gilbert James, Ph. D.
Holton.....	Campbell College.....	Coed....	Wm. C. T. Adams, LL. D.
Kansas City.....	Kansas City University.....	Coed....	J. H. Lucas, LL. D., chancellor
Lawrence.....	University of Kansas.....	Coed....	Frank Strong, LL. D.
Lindsborg.....	Bethany College.....	Coed....	Ernst F. Philblad, D. D.
McPherson.....	McPherson College.....	Coed....	Daniel W. Kurtz, D. D.
Manhattan.....	Kansas State Agricultural College.....	Coed....	Henry J. Waters, B. S. A.
Ottawa.....	Ottawa University.....	Coed....	Silas E. Price, D. D.
St. Marys.....	St. Mary's College.....	Men.....	Wm. J. Wallace, S. J.
Salina.....	Kansas Wesleyan University.....	Coed....	Robert P. Smith, D. D.
Sterling.....	Cooper College.....	Coed....	Ross T. Campbell, D. D.
Topeka.....	Washburn College.....	Coed....	D. L. McEachron, Litt. D., acting.
Wichita.....	Fairmount College.....	Coed....	Walter H. Rollins, D. D.
Do.....	Friends University.....	Coed....	Edmund Stanley, A. M.
Winfield.....	Southwestern College.....	Coed....	Frank E. Mossman, D. D.
KENTUCKY.			
Berea.....	Berea College.....	Coed....	Wm. G. Frost, D. D.
Bowling Green.....	Ogden College.....	Men.....	Wm. M. Pearce, A. B.
Danville.....	Kentucky College for Women.....	Women.....	John C. Acheson, LL. D.
Do.....	Central University of Kentucky.....	Men.....	Frederick W. Hinitz, Ph. D.
Georgetown.....	Georgetown College.....	Coed....	Maldon B. Adams, D. D.
Glasgow.....	Liberty College for Women.....	Women.....	M. W. Hatton, Ph. D.
Harrodsburg.....	Beaumont College.....	Women.....	Thomas Smith, A. M.
Hopkinsville.....	Bethel Female College.....	Women.....	
Lexington.....	Hamilton College for Women.....	Women.....	E. W. McDiarmid.
Do.....	Bayre College.....	Women.....	J. M. Spencer, D. D.
Do.....	State University of Kentucky.....	Coed....	Henry S. Barker, LL. D.
Do.....	Transylvania University.....	Coed....	Richard H. Crossfield, LL. D.
Louisville.....	University of Louisville.....	Coed....	John Patterson, LL. D., dean.
Owensboro.....	Owensboro Female College.....	Women.....	J. Byron La Rue
Russellville.....	Bethel College.....	Men.....	Harry G. Brownell
Do.....	Logan Female College.....	Women.....	J. W. Repass, D. D.
St. Mary.....	St. Mary's College.....	Men.....	Michael Jaglowicz, C. R.
Winchester.....	Kentucky Wesleyan College.....	Coed....	J. L. Clark, LL. D.
LOUISIANA.			
Baton Rouge.....	Louisiana State University and Agricultural and Mechanical College.	Coed....	Thomas D. Boyd, LL. D.
Clinton.....	Silliman Collegiate Institute.....	Women.....	H. H. Brownlee, A. B.
Convent.....	Jefferson College.....	Men.....	R. H. Smith, S. M.

IX.—UNIVERSITY AND COLLEGE PRESIDENTS—Continued.

Location.	University or college.	For men, for women, or coedu- cational.	Name of president.
LOUISIANA—continued.			
Mansfield.....	Mansfield Female College.....	Women.	R. E. Bobbitt, B. S.
New Orleans.....	H. Sophie Newcomb Memorial College.	Women.	Brandt V. B. Dixon, LL. D.
Do.....	Leland University (colored).....	Coed.....	Alfred A. Earle.
Do.....	Loyola University.....	Men.....	Alphonsus E. Otis, S. J.
Do.....	New Orleans University (colored).	Coed.....	Chas. M. Melden, D. D.
Do.....	Tulane University of Louisiana....	Men.....	Robert Sharp, Ph. D.
MAINE.			
Brunswick.....	Bowdoin College.....	Men.....	Wm. De Witt Hyde, LL. D.
Lewiston.....	Bates College.....	Coed.....	George C. Chase, LL. D.
Orono.....	University of Maine.....	Coed.....	Robert J. Aley, LL. D.
Van Buren.....	Van Buren College (St. Mary's)...	Men.....	Matthew Thouvenin, S. M.
Waterville.....	Colby College.....	Coed.....	Arthur J. Roberts, A. M.
MARYLAND.			
Annapolis.....	St. John's College.....	Men.....	Thomas Fell, LL. D.
Do.....	United States Naval Academy....	Men.....	Capt. Wm. F. Fullam, superin- tendent.
Baltimore.....	Goucher College.....	Women.	Wm. W. Guth, Ph. D.
Do.....	Johns Hopkins University.....	Men.....	Frank J. Goodnow, LL. D.
Do.....	Loyola College.....	Men.....	Wm. J. Ennis, S. J.
Do.....	Morgan College (colored).....	Coed.....	John O. Spencer, Ph. D.
Do.....	Mount St. Joseph's College.....	Men.....	Brother Norbert, director.
Do.....	Notre Dame College of Maryland..	Women.	Mary Meletia, dean.
Chestertown.....	Washington College.....	Coed.....	James W. Cain, LL. D.
College Park.....	Maryland Agricultural College....	Men.....	Harry J. Patterson, Sc. D.
Ellicott City.....	Rock Hill College.....	Men.....	Brother Dorotheus, F. S. C.
Emmitsburg.....	Mount St. Mary's College.....	Men.....	Bernard J. Bradley, LL. D.
Frederick.....	Hood College.....	Women.	Joseph H. Apple, A. M.
Lutherville.....	Maryland College for Women.....	Women.	Chas. W. Gallagher, D. D.
Westminster.....	Western Maryland College.....	Coed.....	Thomas H. Lewis, LL. D.
MASSACHUSETTS.			
Amherst.....	Amherst College.....	Men.....	Alexander Melklejohn, Ph. D.
Do.....	Massachusetts Agricultural College	Coed.....	Kenyon L. Butterfield, LL. D.
Boston.....	Boston College.....	Men.....	Charles W. Lyons, S. J.
Do.....	Boston University.....	Coed.....	Lemuel H. Murlin, D. D.
Do.....	Massachusetts Institute of Tech- nology.	Coed.....	Richard C. Maclaurin, LL. D.
Do.....	Simmons College.....	Women.	Henry Lefavour, LL. D.
Cambridge.....	Harvard University.....	Men.....	Abbott Lawrence Lowell, LL. D.
Do.....	Radcliffe College.....	Women.	Le Baron R. Briggs, LL. D.
Northampton.....	Smith College.....	Women.	Marion Le Roy Burton, LL. D.
Norton.....	Wheaton College.....	Women.	Samuel V. Cole, D. D.
South Hadley.....	Mount Holyoke College.....	Women.	Mary E. Woolley, LL. D.
Tufts College.....	Tufts College.....	Coed.....	Hermon C. Bumpus, LL. D.
Wellesley.....	Wellesley College.....	Women.	Ellen F. Pendleton, M. A.
Williamstown.....	Williams College.....	Men.....	Harry A. Garfield, LL. D.
Worcester.....	Clark University.....	Men.....	G. Stanley Hall, LL. D.
Do.....	Clark College.....	Men.....	Edmund Clark Sanford, LL. D.
Do.....	College of the Holy Cross.....	Men.....	Joseph N. Dinand, S. J.
Do.....	Worcester Polytechnic Institute..	Men.....	Ira N. Hollis, L. H. D.
MICHIGAN.			
Adrian.....	Adrian College.....	Coed.....	Brayman W. Anthony, LL. D.
Albion.....	Albion College.....	Coed.....	Samuel Dickie, LL. D.
Alma.....	Alma College.....	Coed.....	Thomas G. Blaisdell, Ph. D.
Ann Arbor.....	University of Michigan.....	Coed.....	Harry B. Hutchins, LL. D.
Detroit.....	University of Detroit.....	Men.....	Wm. F. Dooley, S. J.
East Lansing.....	Michigan Agricultural College....	Coed.....	Jonathan L. Snyder, Ph. D.
Hillsdale.....	Hillsdale College.....	Coed.....	Joseph W. Mauck, LL. D.
Holland.....	Hope College.....	Coed.....	Ame Vennema, D. D.
Houghton.....	Michigan College of Mines.....	Men.....	Fred W. McNair, Sc. D.
Kalamazoo.....	Kalamazoo College.....	Coed.....	Herbert L. Stetson, LL. D.
Olivet.....	Olivet College.....	Coed.....	Ellsworth G. Lancaster, LL. D.
MINNESOTA.			
Albert Lea.....	Albert Lea College.....	Women.	Gertrude S. Kingsland, dean.
Collegeville.....	St. John's University.....	Men.....	Peter Engle, O. S. B., Ph. D.
Minneapolis.....	Augsburg Seminary.....	Men.....	Georg Sverdrup, jr., M. A.
Do.....	University of Minnesota.....	Coed.....	George E. Vincent, LL. D.

IX.—UNIVERSITY AND COLLEGE PRESIDENTS—Continued.

Location.	University or college.	For men, for women, or coedu- cational.	Name of president.
MINNESOTA—continued.			
Northfield.....	Carleton College.....	Coed....	Donald J. Cowling, Ph. D.
Do.....	St. Olaf College.....	Coed....	L. A. Vigness.
St. Paul.....	Hamline University.....	Coed....	Samuel F. Kerfoot, D. D.
Do.....	Macalester College.....	Coed....	Thomas M. Hodgman, LL. D.
St. Peter.....	Gustavus Adolphus College.....	Coed....	O. J. Johnson, B. D.
Winona.....	College of St. Teresa.....	Women.	Sister M. Leo.
MISSISSIPPI.			
Agricultural College....	Mississippi Agricultural and Me- chanical College.	Coed....	George R. Hightower, B. S.
Blue Mountain.....	Blue Mountain Female College....	Women.	W. J. Lowrey, LL. D.
Brookhaven.....	Whitworth Female College.....	Women.	I. W. Cooper, D. D.
Clinton.....	Hillman College.....	Women.	W. T. Lowrey, D. D.
Do.....	Mississippi College.....	Men....	John W. Provine, LL. D.
Columbus.....	Industrial Institute and College...	Women.	Henry L. Whitfield.
French Camp.....	Central Mississippi Institute.....	Women.	James A. Sanderson, principal.
Grenada.....	Grenada College.....	Women.	J. R. Countiss, A. B.
Holly Springs.....	Rust University (colored).....	Coed....	James T. Docking, Ph. D.
Jackson.....	Millsaps College.....	Coed....	Alexander F. Watkins, D. D.
Meridian.....	Meridian College.....	Coed....	J. W. Beeson, LL. D.
Pontotoc.....	Chickasaw Female College.....	Women.	T. J. O'Neill.
Port Gibson.....	Port Gibson Female College.....	Women.	J. N. Powers, chancellor.
University.....	University of Mississippi.....	Coed....	
MISSOURI.			
Albany.....	Palmer College.....	Coed....	E. A. Watkins, D. D.
Cameron.....	Missouri Wesleyan College.....	Coed....	Harvey R. De Bra, D. D.
Canton.....	Christian University.....	Coed....	Earle M. Todd, A. B.
Columbia.....	Christian College.....	Women.	Mrs. Luella W. St. Claire-Moss.
Do.....	Stephens College.....	Women.	James M. Wood, A. M.
Do.....	University of Missouri.....	Coed....	Albert Ross Hill, LL. D.
Fayette.....	Central College.....	Coed....	Paul H. Linn, D. D.
Do.....	Howard-Payne College.....	Women.	Henry E. Stout.
Fulton.....	Synodical College for Girls.....	Women.	Walter M. Langtry.
Do.....	Westminster College.....	Men....	John J. Rice, LL. D., acting.
Glasgow.....	Pritchett College.....	Coed....	Uriel S. Hall, A. B.
Lexington.....	Central Female College.....	Women.	Z. M. Williams, D. D.
Do.....	Lexington College for Young Wo- men.	Women.	
Liberty.....	Liberty Ladies College.....	Women.	Lawrence I. McQueen, A. M.
Do.....	William Jewell College.....	Men....	John P. Greene, LL. D.
Marshall.....	Missouri Valley College.....	Coed....	Wm. H. Black, LL. D.
Mexico.....	Hardin College.....	Women.	John W. Million, A. M.
Morrisville.....	Scarritt-Morrisville College.....	Coed....	Louis C. Perry, Ph. D.
Nevada.....	Cotter College.....	Women.	Mrs. V. A. C. Stockard.
Parkville.....	Park College.....	Coed....	Arthur L. Wolfe, Ph. D.
St. Charles.....	Lindenwood College for Women...	Women.	John L. Roemer, D. D.
St. Louis.....	Christian Brothers College.....	Men....	Brother Lawrence Sixtus, F.S.A.
Do.....	Forest Park University.....	Women.	Mrs. Anna Sneed Cairns.
Do.....	St. Louis University.....	Men....	Bernard J. Otting, S. J.
Do.....	Washington University.....	Coed....	Frederic A. Hall, LL. D., acting chancellor.
Springfield.....	Drury College.....	Coed....	James G. McMurtry, Ph. D.
Tarkio.....	Tarkio College.....	Coed....	Joseph A. Thompson, D. D.
Warrenton.....	Central Wesleyan College.....	Coed....	Otto E. Kriege, D. D.
MONTANA.			
Bozeman.....	Montana College of Agriculture and Mechanic Arts.	Coed....	James M. Hamilton, M. S.
Butte.....	Montana State School of Mines....	Coed....	Charles H. Bowman, M. S.
Missoula.....	University of Montana.....	Coed....	Edwin B. Craighead, LL. D.
NEBRASKA.			
Bellevue.....	Bellevue College.....	Coed....	Wm. E. Nicholl.
Bethany.....	Cotner University.....	Coed....	William Oeschger, LL. D., chan- cellor.
College View.....	Union College.....	Coed....	Harry A. Morrison, A. M.
Crete.....	Doane College.....	Coed....	Wm. Orville Allen, Ph. D.
Grand Island.....	Grand Island College.....	Coed....	George W. Taft.
Hastings.....	Hastings College.....	Coed....	R. B. Crone, Ph. B.
Lincoln.....	University of Nebraska.....	Coed....	Samuel Avery, LL. D., chan- cellor.

IX.—UNIVERSITY AND COLLEGE PRESIDENTS—Continued.

Location.	University or college.	For men, for women, or coedu- cational.	Name of president.
NEBRASKA—continued.			
Omaha.....	Creighton University.....	Men.....	F. X. McMenamy, S. J.
Do.....	University of Omaha.....	Coed.....	Daniel E. Jenkins, Ph. D.
University Place.....	Nebraska Wesleyan University....	Coed.....	Clark A. Fulmer, M. A., chan- cellor.
York.....	York College.....	Coed.....	M. O. McLaughlin.
NEVADA.			
Reno.....	State University of Nevada.....	Coed.....	Archer W. Hendrick, A. M.
NEW HAMPSHIRE.			
Durham.....	New Hampshire College of Agri- culture and Mechanic Arts.	Coed.....	Edward T. Fairchild, LL. D.
Hanover.....	Dartmouth College.....	Men.....	Ernest F. Nichols, LL. D.
Manchester.....	St. Anselm's College.....	Men.....	Ernest Helmstetter, O. S. B.
NEW JERSEY.			
Convent Station.....	College of St. Elizabeth.....	Women.....	Sister Mary Pauline.
Hoboken.....	Stevens Institute of Technology...	Men.....	Alexander C. Humphreys, LL. D.
Jersey City.....	St. Peter's College.....	Men.....	Joseph Mulry, S. J.
Kenilworth.....	Upsala College.....	Coed.....	Peter Froeberg, B. D.
New Brunswick.....	Rutgers College.....	Men.....	Wm. H. S. Demarest, LL. D.
Princeton.....	Princeton University.....	Men.....	John Grier Hibben, LL. D.
South Orange.....	Seton Hall College.....	Men.....	Jas. F. Mooney, LL. D.
NEW MEXICO.			
Albuquerque.....	University of New Mexico.....	Coed.....	David R. Boyd, Ph. D.
Socorro.....	New Mexico School of Mines.....	Coed.....	Fayette A. Jones, LL. D.
State College.....	New Mexico College of Agriculture and Mechanic arts.	Coed.....	George E. Ladd.
NEW YORK.			
Albany.....	New York State College for Teach- ers.	Coed.....	A. R. Brubacher.
Alfred.....	Alfred University.....	Coed.....	Boothe C. Davis, D. D.
Annandale.....	St. Stephen's College.....	Men.....	Wm. C. Rodgers, D. D.
Aurora.....	Wells College.....	Women.....	Kerr D. Macmillan, B. D.
Brooklyn.....	Adelphi College.....	Coed.....	S. Parkes Cadman, D. D.
Do.....	College of St. Francis Xavier.....	Men.....	Joseph H. Rockwell, S. J.
Do.....	Polytechnic Institute of Brooklyn.	Men.....	Fred. W. Atkinson, Ph. D.
Do.....	St. Francis College.....	Men.....	Brother David, O. S. F.
Do.....	St. John's College.....	Men.....	John W. Moore, C. M.
Buffalo.....	Cankins College.....	Men.....	Geo. J. Krim, S. J.
Canton.....	St. Lawrence University.....	Coed.....	
Clinton.....	Hamilton College.....	Men.....	M. W. Stryker, LL. D.
Elmira.....	Elmira College.....	Women.....	A. C. Mackenzie, LL. D.
Geneva.....	Hobart College.....	Coed.....	Lyman P. Powell, A. B.
Hamilton.....	Colgate University.....	Men.....	Elmer B. Bryan, LL. D.
Ithaca.....	Cornell University.....	Coed.....	Jacob G. Schurman, LL. D.
Keuka Park.....	Keuka College.....	Coed.....	Joseph A. Serena.
New Rochelle.....	College of New Rochelle.....	Women.....	Michael C. O'Farrell, D. D.
New York.....	Barnard College.....	Women.....	Virginia C. Gildersleeve, Ph. D., dean.
Do.....	College of the City of New York....	Men.....	Sidney E. Mezes, Ph. D.
Do.....	Columbia University.....	Men.....	Nicholas M. Butler, LL. D.
Do.....	Fordham University.....	Men.....	Thomas J. McCluskey, S. J.
Do.....	Hunter College of the City of New York.	Women.....	George S. Davis, LL. D.
Do.....	Manhattan College.....	Men.....	Brother Edward, F. S. C.
Do.....	New York University.....	Coed.....	Elmer Ellsworth Brown, LL. D., chancellor.
Do.....	Teachers College.....	Coed.....	James E. Russell, LL. D., dean.
Niagara University.....	Niagara University.....	Men.....	M. R. Drennan, C. M.
Potsdam.....	Clarkson School of Technology...	Men.....	John P. Brooks, M. S., director.
Poughkeepsie.....	Vassar College.....	Women.....	H. N. MacCracken, Ph. D.
Rochester.....	University of Rochester.....	Coed.....	Rush Rhees, LL. D.
St. Bonaventure.....	St. Bonaventure's College.....	Men.....	Fidelis J. Reynolds, O. F. M.
Schenectady.....	Union University.....	Men.....	Charles A. Richmond, LL. D.
Syracuse.....	Syracuse University.....	Coed.....	James R. Day, LL. D., chan- cellor.
Troy.....	Rensselaer Polytechnic Institute..	Men.....	Palmer C. Ricketts, LL. D.
West Point.....	United States Military Academy...	Men.....	Col. Clarence P. Townsley, supt.

IX.—UNIVERSITY AND COLLEGE PRESIDENTS—Continued.

Location.	University or college.	For men, for women, or coedu- cational.	Name of president.
NORTH CAROLINA.			
Belmont.....	St. Mary's College.....	Men.....	Leo Haid, O. S. B., D. D.
Chapel Hill.....	University of North Carolina.....	Coed.....	Edward K. Graham, LL. D.
Charlotte.....	Biddle University (colored).....	Men.....	H. L. McCrory, D. D.
Do.....	Elizabeth College.....	Women.....	Charles B. King, D. D.
Do.....	Queens College.....	Women.....	John L. Caldwell, D. D.
Davidson.....	Davidson College.....	Men.....	Wm. J. Martin, Ph. D.
Durham.....	Trinity College.....	Coed.....	Wm. P. Few, Ph. D.
Elon College.....	Elon College.....	Coed.....	Wm. A. Harper, LL. D.
Greensboro.....	Greensboro College for Women.....	Women.....	S. B. Turrentine, D. D.
Gulford College.....	Gulford College.....	Coed.....	L. Lyndon Hobbs, LL. D.
Hickory.....	Lenoir College.....	Coed.....	R. L. Fritz, D. D.
Newton.....	Catawba College.....	Coed.....	J. D. Andrew, A. B.
Oxford.....	Oxford College.....	Women.....	F. P. Hobgood, A. M.
Raleigh.....	Meredith College.....	Women.....	Richard T. Vann, D. D.
Do.....	Peace Institute.....	Women.....	George J. Ramsey, LL. D.
Do.....	St. Mary's School.....	Women.....	George W. Lay, A. B.
Do.....	Shaw University (colored).....	Coed.....	Chas. F. Meserve, LL. D.
Red Springs.....	Southern Presbyterian College.....	Women.....	C. G. Vardell, D. D.
Salisbury.....	Livingstone College (colored).....	Coed.....	William H. Goler, D. D.
Wake Forest.....	Wake Forest College.....	Men.....	Wm. L. Poteat, LL. D.
Weaverville.....	Weaver College.....	Coed.....	W. A. Newell, A. B.
West Raleigh.....	North Carolina College of Agricul- ture and Mechanic Arts.....	Men.....	Daniel H. Hill, LL. D.
Winston-Salem.....	Salem Academy and College.....	Women.....	Howard E. Rondthaler, A. M.
NORTH DAKOTA.			
Agricultural College.....	North Dakota Agricultural College.....	Coed.....	John H. Worst, LL. D.
Fargo.....	Fargo College.....	Coed.....	John W. Hansel.
Jamestown.....	Jamestown College.....	Coed.....	Barend H. Kroeze, D. D.
University.....	University of North Dakota.....	Coed.....	Frank L. McVey, LL. D.
Do.....	Wesley College.....	Coed.....	Edward P. Robertson, D. D.
OHIO.			
Ada.....	Ohio Northern University.....	Coed.....	Albert E. Smith, D. D.
Akron.....	Municipal University of Akron.....	Coed.....	Parke R. Kolbe, Ph. D.
Alliance.....	Mount Union College.....	Coed.....	Wm. H. McMaster, D. D.
Ashland.....	Ashland College.....	Coed.....	Wm. D. Furry, Ph. D.
Athens.....	Ohio University.....	Coed.....	Alston Ellis, LL. D.
Berea.....	Baldwin-Wallace College.....	Coed.....	Arthur L. Breslich, Ph. D.
Bluffton.....	Bluffton College.....	Coed.....	Samuel K. Mosiman, Ph. D.
Cedarville.....	Cedarville College.....	Coed.....	David McKinney, LL. D.
Cincinnati.....	St. Xavier College.....	Men.....	Francis Heiermann, S. J.
Do.....	University of Cincinnati.....	Coed.....	Chas. W. Dabney, LL. D.
Cleveland.....	Case School of Applied Science.....	Men.....	Charles S. Howe, Ph. D.
Do.....	St. Ignatius College.....	Men.....	John B. Furay, S. J.
Do.....	Western Reserve University.....	Coed.....	Charles F. Thwing, LL. D.
Columbus.....	Capital University.....	Men.....	Otto Meez, A. B.
Do.....	Ohio State University.....	Coed.....	Wm. O. Thompson, LL. D.
Dayton.....	St. Mary's College.....	Men.....	Bernard P. O'Reilly, S. M., D. D.
Defiance.....	Defiance College.....	Coed.....	Peter W. McReynolds, D. D.
Delaware.....	Ohio Wesleyan University.....	Coed.....	Herbert Welch, LL. D.
Findlay.....	Findlay College.....	Coed.....	Wm. H. Guyer, A. M.
Gambier.....	Kenyon College.....	Men.....	Wm. F. Peirce, L. H. D.
Granville.....	Denison University.....	Coed.....	Clark W. Chamberlain, Ph. D.
Hiram.....	Hiram College.....	Coed.....	Miner Lee Bates, LL. D.
Lebanon.....	Lebanon University.....	Coed.....	H. B. Cunningham, A. M.
Marietta.....	Marietta College.....	Coed.....	George W. Hinman, Ph. D.
New Athens.....	Franklin College.....	Coed.....	E. M. Baxter, LL. D.
New Concord.....	Muskingum College.....	Coed.....	J. K. Montgomery, D. D.
Oberlin.....	Oberlin College.....	Coed.....	Henry C. King, D. D.
Oxford.....	Miami University.....	Coed.....	Raymond M. Hughes, M. S.
Do.....	Oxford College for Women.....	Women.....	Jane Sherzer, Ph. D.
Do.....	Western College for Women.....	Women.....	W. W. Boyd, Ph. D.
Painesville.....	Lake Erie College.....	Women.....	Vivian Blanche Small, LL. D.
Rio Grande.....	Rio Grande College.....	Coed.....	Simeon H. Bing, M. S.
Springfield.....	Wittenberg College.....	Coed.....	Charles G. Heckert, D. D.
Tiffin.....	Heidelberg University.....	Coed.....	Charles E. Miller, LL. D.
Toledo.....	St. John's University.....	Men.....	John A. Weland, S. J.
Do.....	Toledo University.....	Coed.....	A. Monroe Stowe.
Westerville.....	Otterbein University.....	Coed.....	Walter G. Clippinger, D. D.
West Lafayette.....	West Lafayette College.....	Coed.....	Aubrey F. Hess.
Wilberforce.....	Wilberforce University (colored).....	Coed.....	Wm. S. Scarborough, LL. D.
Wilmington.....	Wilmington College.....	Coed.....	Samuel H. Hodgins, A. D.
Wooster.....	University of Wooster.....	Coed.....	Louis E. Holden, LL. D.
Yellowsprings.....	Antioch College.....	Coed.....	S. D. Fess, LL. D.

IX.—UNIVERSITY AND COLLEGE PRESIDENTS—Continued.

Location.	University or college.	For men, for women, or coedu- cational.	Name of president.
OKLAHOMA.			
Guthrie.....	Methodist University of Oklahoma	Coed....	Edward Hislop, D. D.
Kingfisher.....	Kingfisher College.....	Coed....	Calvin B. Moody, D. D.
Norman.....	University of Oklahoma.....	Coed....	Stratton D. Brooks, Ph. D.
Stillwater.....	Oklahoma Agricultural and Me- chanical College.	Coed....	L. L. Lewis, acting.
Tulsa.....	Henry Kendall College.....	Coed....	Frederick W. Hawley, A. M.
Wilburton.....	Oklahoma School of Mines and Metallurgy.	Men.....	Edward P. Barrett, B. S.
OREGON.			
Albany.....	Albany College.....	Coed....	Harry M. Crooks, A. B.
Corvallis.....	Oregon Agricultural College.....	Coed....	William J. Kerr, Sc. D.
Dallas.....	Dallas College.....	Coed....	Abraham A. Winter, A. M.
Eugene.....	University of Oregon.....	Coed....	Prince L. Campbell, LL. D.
Forest Grove.....	Pacific University.....	Coed....	Charles J. Bushnell, Ph. D.
McMinnville.....	McMinnville College.....	Coed....	Leonard W. Riley, D. D.
Newberg.....	Pacific College.....	Coed....	Levi T. Pennington, A. B.
Philomath.....	Philomath College.....	Coed....	L. L. Epley, A. M.
Portland.....	Reed College.....	Coed....	Wm. T. Foster, LL. D.
Salem.....	Willamette University.....	Coed....	Fletcher Homan, D. D.
PENNSYLVANIA.			
Allentown.....	Allentown College for Women.....	Women.	Wm. F. Curtis, Litt. D.
Do.....	Muhlenberg College.....	Men.....	J. W. A. Hass, D. D.
Annville.....	Lebanon Valley College.....	Coed....	George D. Gossard, D. D.
Beatty.....	St. Vincent College.....	Men.....	Walter Stehle, O. S. B.
Beaver.....	Beaver College.....	Women.	LeRoy Weller, A. M.
Beaver Falls.....	Geneva College.....	Coed....	William H. George, A. M.
Bethlehem.....	Moravian College.....	Men.....	Aug. Schultze, L. H. D.
Do.....	Moravian Seminary and College for Women.	Women.	John H. Clewell, Ph. D.
Bryn Mawr.....	Bryn Mawr College.....	Women.	Miss M. Carey Thomas, LL. D.
Carlisle.....	Dickinson College.....	Coed....	
Chambersburg.....	Wilson College.....	Women.	Anna J. McKeag, LL. D.
Chester.....	Pennsylvania Military College.....	Men.....	Col. C. E. Hyatt, C. E.
Collegeville.....	Ursinus College.....	Coed....	George L. Omwake, Pd. D.
Easton.....	Lafayette College.....	Men.....	Wm. S. Kirkpatrick, acting.
Gettysburg.....	Pennsylvania College.....	Coed....	William A. Granville, LL. D.
Greenville.....	Thiel College.....	Coed....	Henry W. Elson, Ph. D.
Grove City.....	Grove City College.....	Coed....	Alexander T. Ormond, LL. D.
Haverford.....	Haverford College.....	Men.....	Isaac Sharpless, LL. D.
Huntingdon.....	Juniata College.....	Coed....	I. Harvey Brumbaugh, A. M.
Lancaster.....	Franklin and Marshall College.....	Men.....	Henry H. Appel, LL. D.
Lewisburg.....	Bucknell University.....	Coed....	John H. Harris, LL. D.
Lincoln University.....	Lincoln University (colored).....	Men.....	John B. Rendall, D. D.
Meadville.....	Allegheny College.....	Coed....	Wm. H. Crawford, LL. D.
Mechanicsburg.....	Irving Female College.....	Women.	Edmond E. Campbell, Ph. D.
Myerstown.....	Albright College.....	Coed....	John Francis Dunlap, D. D.
New Wilmington.....	Westminster College.....	Coed....	Robert M. Russell, LL. D.
Philadelphia.....	Dropsie College.....	Coed....	Cyrus Adler, Ph. D.
Do.....	La Salle College.....	Men.....	Brother D. Edward, LL. D.
Do.....	Temple University.....	Coed....	Russell H. Conwell, LL. D.
Do.....	University of Pennsylvania.....	Coed....	Edgar Fahs Smith, LL. D., pro- vost.
Pittsburgh.....	Carnegie Institute of Technology..	Coed....	Arthur A. Hamerschlag, LL. D.
Do.....	Duquesne University of the Holy Ghost.	Men.....	Martin A. Hehir, LL. D.
Do.....	Pennsylvania College for Women..	Women.	Cora H. Coolidge, B. L., acting.
Do.....	University of Pittsburgh.....	Coed....	S. B. McCormick, LL. D., chan- cellor.
Selinsgrove.....	Susquehanna University.....	Coed....	Charles T. Aikens, D. D.
South Bethlehem.....	Lehigh University.....	Men.....	Henry S. Drinker, LL. D.
State College.....	Pennsylvania State College.....	Coed....	Edwin E. Sparks, LL. D.
Swarthmore.....	Swarthmore College.....	Coed....	Joseph Swain, LL. D.
Villanova.....	Villanova College.....	Men.....	Edward G. Dohan, O. S. A.
Washington.....	Washington and Jefferson College.	Coed....	James D. Moffatt, LL. D.
Waynesburg.....	Waynesburg College.....	Coed....	Ezra F. Baker, Ph. D.
PORTO RICO.			
San Juan.....	University of Porto Rico.....	Coed....	Edward M. Bainter, B. S.
RHODE ISLAND.			
Kingston.....	Rhode Island State College.....	Coed....	Howard Edwards, LL. D.
Providence.....	Brown University.....	Coed....	W. H. P. Faunce, LL. D.

IX.—UNIVERSITY AND COLLEGE PRESIDENTS—Continued.

Location.	University or college.	For men, for women, or coedu- cational.	Name of president.
SOUTH CAROLINA.			
Charleston.....	College of Charleston.....	Men.....	Harrison Randolph, LL. D.
Do.....	The Citadel, the Military College of South Carolina.	Men.....	Col. O. J. Bond, A. M., superin- tendent.
Clemson College.....	Clemson Agricultural College.....	Men.....	Walter M. Riggs, LL. D.
Clinton.....	Presbyterian College of South Carolina.	Coed....	Davison McDowell Douglass, D. D.
College Place.....	Columbia College.....	Women.	W. W. Daniel, D. D.
Columbia.....	Allen University (colored).....	Coed....	W. W. Beckett.
Do.....	Benedict College (colored).....	Coed....	B. W. Valentine, A. B.
Do.....	College for Women.....	Women.	Euphemia McClintock, A. B.
Do.....	University of South Carolina.....	Coed....	Win. S. Currell, Ph. D.
Due West.....	Erskine College.....	Coed....	James Strong Moffat, D. D.
Do.....	Woman's College of Due West.....	Women.	Richard L. Robinson.
Greenville.....	Chicora College.....	Women.	S. C. Byrd, D. D.
Do.....	Furman University.....	Men.....	Edwin McNeil Poteat, LL. D.
Do.....	Greenville Female College.....	Women.	David M. Ramsey, D. D.
Greenwood.....	Lander Female College.....	Women.	John O. Willson, D. D.
Hartsville.....	Coker College for Women.....	Women.	Arthur J. Hall, Ph. D.
Newberry.....	Newberry College.....	Coed....	John H. Harms, D. D.
Orangeburg.....	Claffin University (colored).....	Coed....	Lewis M. Dunton, LL. D.
Spartanburg.....	Converse College.....	Women.	Robert P. Pell, Litt. D.
Do.....	Wofford College.....	Men.....	Henry N. Snyder, LL. D.
SOUTH DAKOTA.			
Brookings.....	South Dakota State College of Agriculture and Mechanic Arts.	Coed....	Elwood C. Perisho, M. S.
Huron.....	Huron College.....	Coed....	Harry M. Gage, A. M.
Mitchell.....	Dakota Wesleyan University.....	Coed....	Wm. G. Seaman, Ph. D.
Rapid City.....	State School of Mines.....	Coed....	Cleophas C. O'Harra, Ph. D.
Redfield.....	Redfield College.....	Coed....	Edward A. Fath, Ph. D.
Sioux Falls.....	Sioux Falls College.....	Coed....	Edward F. Jorden, D. D.
Vermilion.....	University of South Dakota.....	Coed....	Robert L. Slagle, Ph. D.
Yankton.....	Yankton College.....	Coed....	Henry K. Warren, LL. D.
TENNESSEE.			
Bristol.....	King College.....	Men.....	Tilden Scherer.
Do.....	Sullins College.....	Women.	W. S. Neighbors.
Chattanooga.....	University of Chattanooga.....	Coed....	Frederick W. Hixson, D. D.
Clarksville.....	Southwestern Presbyterian Uni- versity.	Men.....	J. R. Dobyns, LL. D.
Gallatin.....	Howard College for Young Ladies.	Women.	W. H. Buck, A. M.
Greeneville.....	Tusculum College.....	Coed....	Chas. O. Gray, D. D.
Harrogate.....	Lincoln Memorial University.....	Coed....	George A. Hubbell, Ph. D.
Jackson.....	Memphis Conference Female In- stitute.	Women.	Henry G. Hawkins, A. B.
Do.....	Union University.....	Coed....	A. T. Barrett, LL. D.
Jefferson City.....	Carson and Newman College.....	Coed....	Jesse McGarity Burnett, D. D.
Knoxville.....	Knoxville College (colored).....	Coed....	R. W. McGranahan, D. D.
Do.....	University of Tennessee.....	Coed....	Brown Ayres, LL. D.
Lebanon.....	Cumberland University.....	Coed....	Samuel A. Coile, D. D.
McKenzie.....	Bethel College.....	Coed....	N. J. Finney, A. M.
Maryville.....	Maryville College.....	Coed....	Samuel T. Wilson, D. D.
Memphis.....	Christian Brothers College.....	Men.....	Brother Edward, F. S. C.
Milligan.....	Milligan College.....	Coed....	James T. McKissick, A. M.
Murfreesboro.....	Tennessee College.....	Women.	Geo. J. Burnett, A. M.
Nashville.....	Boscobel College.....	Women.	Mrs. N. J. Ellis and Mrs. C. E. Sullivan.
Do.....	Fisk University (colored).....	Coed....	C. W. Morrow, D. D., acting.
Do.....	George Peabody College for Teachers.	Coed....	Bruce R. Payne, Ph. D.
Do.....	Vanderbilt University.....	Coed....	James H. Kirkland, LL. D., Chancellor.
Do.....	Walden University (colored).....	Coed....	
Sewanee.....	University of the South.....	Men.....	Albion W. Knight, D. D., vice chancellor.
Spencer.....	Burritt College.....	Coed....	W. S. Graves, A. M.
Washington College.....	Washington College.....	Coed....	James T. Cooter, D. D.
TEXAS.			
Abilene.....	Simmons College.....	Coed....	Jefferson D. Sandefer, Ph. B.
Austin.....	University of Texas.....	Coed....	
Belton.....	Baylor Female College.....	Women.	John C. Hardy, LL. D.
Bonham.....	Carlton College.....	Coed....	C. T. Carlton, A. B.

IX.—UNIVERSITY AND COLLEGE PRESIDENTS—Continued.

Location.	University or college.	For men, for women, or coedu- cational.	Name of president.
TEXAS—continued.			
Brownwood.....	Daniel Baker College.....	Coed.....	T. P. Junkin, LL. D.
Do.....	Howard Payne College.....	Coed.....	James M. Carroll, D. D.
College Station.....	Agricultural and Mechanical Col- lege of Texas.....	Men.....	W. B. Bizzell, D. C. L.
Fort Worth.....	Texas Woman's College.....	Women.....	H. A. Boaz, D. D.
Do.....	Texas Christian University.....	Coed.....	F. D. Kershner, LL. D.
Georgetown.....	Southwestern University.....	Coed.....	Charles M. Bishop, D. D.
Houston.....	Rice Institute.....	Coed.....	Edgar O. Lovett, Ph. D.
San Antonio.....	St. Louis College.....	Men.....	A. Friche, S. M.
Sherman.....	Austin College.....	Men.....	Thomas S. Clyce, LL. D.
Do.....	North Texas Female College.....	Women.....	Mrs. Lucy A. Kidd-Key.
Tehuacana.....	Westminster College.....	Coed.....	John C. Williams, D. D.
Waco.....	Baylor University.....	Coed.....	Samuel P. Brooks, LL. D.
Do.....	Paul Quinn College (colored).....	Coed.....	I. M. Burgan, LL. D.
Waxahachie.....	Trinity University.....	Coed.....	Samuel Lee Hornbeak, LL. D.
UTAH.			
Logan.....	Agricultural College of Utah.....	Coed.....	John A. Widtsoe, Ph. D.
Salt Lake City.....	University of Utah.....	Coed.....	Joseph T. Kingsbury, Sc. D.
VERMONT.			
Burlington.....	University of Vermont and State Agricultural College.....	Coed.....	Guy P. Benton, LL. D.
Middlebury.....	Middlebury College.....	Coed.....	John Martin Thomas, LL. D.
Northfield.....	Norwich University.....	Men.....	Charles H. Spooner, LL. D.
Winooski.....	St. Michael's College.....	Men.....	E. M. Salmon, D. D.
VIRGINIA.			
Abingdon.....	Martha Washington College.....	Women.....	Samuel D. Long, A. B.
Do.....	Stonewall Jackson Institute.....	Women.....	Frank L. McCue.
Ashland.....	Randolph-Macon College.....	Men.....	Robert E. Blackwell, LL. D.
Blacksburg.....	Virginia Agricultural and Mechan- ical College and Polytechnic In- stitute.....	Men.....	Joseph D. Eggleston, A. M.
Bridgewater.....	Bridgewater College.....	Coed.....	John S. Flory, Ph. D.
Bristol.....	Virginia Intermont College.....	Women.....	H. G. Noffsinger, M. A.
Charlottesville.....	University of Virginia.....	Men.....	Edwin A. Alderman, LL. D.
Danville.....	Roanoke Institute.....	Women.....	John B. Brewer, A. M.
Emory.....	Emory and Henry College.....	Men.....	Chas. C. Weaver, Ph. D.
Hampden-Sidney.....	Hampden-Sidney College.....	Men.....	Henry T. Graham, D. D.
Hollins.....	Hollins College.....	Women.....	Matty L. Cocke.
Lexington.....	Virginia Military Institute.....	Men.....	Edward W. Nichols, supt.
Do.....	Washington and Lee University.....	Men.....	Henry Louis Smith, LL. D.
Lynchburg.....	Randolph-Macon Woman's Col- lege.....	Women.....	Wm. A. Webb, Litt. D.
Do.....	Virginia Christian College.....	Coed.....	G. O. Davis.
Manassas.....	Eastern College.....	Coed.....	Hervin U. Roop, LL. D.
Richmond.....	Richmond College.....	Coed.....	F. W. Boatwright, LL. D.
Do.....	Virginia Union University (col- ored).....	Men.....	George R. Hovey, D. D.
Do.....	Woman's College.....	Women.....	James Nelson, LL. D.
Roanoke.....	Virginia College.....	Women.....	Mattie P. Harris.
Salem.....	Roanoke College.....	Men.....	John A. Morehead, D. D.
Do.....	Roanoke Woman's College.....	Women.....	John C. Peery, A. M.
Sweet Briar.....	Sweet Briar College.....	Women.....	Mary K. Benedict, Ph. D.
Williamsburg.....	College of William and Mary.....	Men.....	Lyon G. Tyler, LL. D.
WASHINGTON.			
Pullman.....	State College of Washington.....	Coed.....	Enoch A. Bryan, LL. D.
Seattle.....	University of Washington.....	Coed.....	Henry Landes, A. M., acting.
Spokane.....	Gonzaga University.....	Men.....	James M. Brogan, S. J.
Do.....	Spokane College.....	Coed.....	A. O. Ulvestad, A. B.
Tacoma.....	College of Puget Sound.....	Coed.....	Edward H. Todd.
Do.....	Whitworth College.....	Coed.....	Donald D. McKay, D. D.
Walla Walla.....	Whitman College.....	Coed.....	Stephen B. L. Penrose, D. D.
WEST VIRGINIA.			
Bethany.....	Bethany College.....	Coed.....	Thomas E. Cramblet, LL. D.
Buckhannon.....	West Virginia Wesleyan College.....	Coed.....	Carl G. Doney, LL. D.
Elkins.....	Davis and Elkins College.....	Coed.....	James E. Allen, A. B.
Morgantown.....	West Virginia University.....	Coed.....	Frank B. Trotter, LL. D., acting.

IX.—UNIVERSITY AND COLLEGE PRESIDENTS—Continued.

Location.	University or college.	For men, for women, or coedu- cational.	Name of president.
WISCONSIN.			
Appleton.....	Lawrence College.....	Coed.....	Samuel Plantz, LL. D.
Beloit.....	Beloit College.....	Coed.....	Edward D. Eaton, LL. D.
Madison.....	University of Wisconsin.....	Coed.....	Charles R. Van Hise, Ph. D.
Milton.....	Milton College.....	Coed.....	Wm. C. Daland, D. D.
Milwaukee.....	Concordia College.....	Men.....	M. J. F. Albrecht.
Do.....	Marquette University.....	Men.....	Joseph Grimmelsman, S. J.
Do.....	Milwaukee-Downer College.....	Women.....	Ellen C. Sabin, A. M.
Plymouth.....	Mission House.....	Coed.....	E. A. Hofer, D. D.
Prairie du Chien.....	Campion College.....	Men.....	George R. Kister, S. J.
Ripon.....	Ripon College.....	Coed.....	Silas Evans, D. D.
Sinsinawa.....	St. Clara College and Academy.....	Women.....	Mother Samuel.
Watertown.....	Northwestern College.....	Men.....	A. F. Ernst.
Waukesha.....	Carroll College.....	Coed.....	W. O. Carrier, D. D.
WYOMING.			
Laramie.....	University of Wyoming.....	Coed.....	Clyde A. Duniway, Ph. D.

X.—PROFESSORS OF PEDAGOGY AND HEADS OF DEPARTMENTS OF PEDAGOGY IN UNIVERSITIES AND COLLEGES.

Location.	University or college.	Name of professor or head of department.
Athens, Ala.....	Athens College.....	H. J. Fusch, A. B.
Birmingham, Ala.....	Howard College.....	George W. Macon, Ph. D.
Marion, Ala.....	Judson College.....	Richard Hall, D. D.
Montgomery, Ala.....	Woman's College of Alabama.....	Blanche M. Loveridge, Ph. D.
University, Ala.....	University of Alabama.....	James J. Doster, A. M.
Arkadelphia, Ark.....	Ouachita College.....	Mrs. Estelle Blake, A. B.
Clarksville, Ark.....	Arkansas Cumberland College.....	J. L. Spence, jr.
Conway, Ark.....	Central College.....	Nannie M. Hiden, A. M.
Fayetteville, Ark.....	University of Arkansas.....	J. R. Jewell, Ph. D.
Berkeley, Cal.....	University of California.....	Alexis F. Lange, Ph. D.
Claremont, Cal.....	Pomona College.....	Robt. D. Williams, Ph. D.
Los Angeles, Cal.....	University of Southern California.....	Thomas B. Stowell, LL. D.
Do.....	Occidental College.....	George F. Cook, Ph. D.
Mills College, Cal.....	Mills College.....	Elias O. James, A. M.
San Jose, Cal.....	College of the Pacific.....	J. Wm. Harris, Ph. D.
Santa Clara, Cal.....	University of Santa Clara.....	C. A. Buckley, S. J.
Stanford University, Cal.....	Leland Stanford Junior University.....	Ellwood P. Cubberley, Ph. D.
Boulder, Colo.....	University of Colorado.....	Frank E. Thompson, B. A.
Colorado Springs, Colo.....	Colorado College.....	Joseph V. Breitwieser, Ph. D.
Greeley, Colo.....	State Teachers College.....	Thos. C. McCracken.
University Park, Colo.....	University of Denver.....	Daniel E. Phillips, Ph. D.
New Haven, Conn.....	Yale University.....	
Newark, Del.....	Delaware College.....	Mary E. Rich, B. S.
Washington, D. C.....	Catholic University of America.....	Thomas E. Shields, Ph. D.
Do.....	George Washington University.....	W. C. Ruediger, Ph. D.
Do.....	Howard University (colored).....	Lewis B. Moore, Ph. D.
De Land, Fla.....	John B. Stetson University.....	Lincoln Hulley, LL. D., pres.
Gainesville, Fla.....	University of Florida.....	John A. Thackston, Ph. D.
Sutherland, Fla.....	Southern College.....	Margaret O. Fitzhugh.
Tallahassee, Fla.....	State College for Women.....	Nathaniel M. Salley, A. M.
Winter Park, Fla.....	Rollins College.....	A. D. Engart.
Athens, Ga.....	University of Georgia.....	T. J. Wooster, Ph. D.
Atlanta, Ga.....	Atlanta University (colored).....	Eagar H. Webster, A. M.
Dahlonega, Ga.....	North Georgia Agricultural College.....	George W. Camp.
Demorest, Ga.....	Piedmont College.....	G. C. Burrage, A. B.
Forsyth, Ga.....	Beaie Tift College.....	C. H. S. Jackson, LL. D., pres.
Gainesville, Ga.....	Brenau College.....	Samuel G. Riley, A. M.
La Grange, Ga.....	La Grange College.....	Jule H. Tucker, A. B.
Do.....	Southern Female College.....	Clinton W. Coleman, A. B.
Macon, Ga.....	Mercer University.....	J. G. Harrison, D. D.
Do.....	Wesleyan Female College.....	G. C. White, A. M.
South Atlanta, Ga.....	Clark University (colored).....	James A. Wilson, Ph. B.
Caldwell, Idaho.....	College of Idaho.....	Payne A. Boulton, A. M.
Moscow, Idaho.....	University of Idaho.....	Philip H. Soulen, A. M.
Aledo, Ill.....	William and Vashti College.....	A. R. Mather, A. M.
Bloomington, Ill.....	Illinois Wesleyan University.....	Ross L. Finney, Ph. D.
Carthage, Ill.....	Carthage College.....	H. D. Hoover, president.
Chicago, Ill.....	De Paul University.....	D. A. Duggan, C. M.
Do.....	University of Chicago.....	Chas. H. Judd, Ph. D.

X.—PROFESSORS OF PEDAGOGY AND HEADS OF DEPARTMENTS OF PEDAGOGY IN UNIVERSITIES AND COLLEGES—Continued.

Location.	University or college.	Name of professor or head of department.
Decatur, Ill.....	James Millikin University.....	John E. Rouse.
Evanston, Ill.....	Northwestern University.....	Elmer E. Jones, Ph. D.
Galesburg, Ill.....	Knox College.....	William L. Raub.
Greenville, Ill.....	Greenville College.....	Mrs. George Layman.
Jacksonville, Ill.....	Illinois College.....	W. L. Harris.
Monmouth, Ill.....	Monmouth College.....	Milton M. Maynard, A. B.
Naperville, Ill.....	Northwestern College.....	George J. Kirn.
Rockford, Ill.....	Rockford College.....	Alice M. Krackowizer, B. Ed.
Upper Alton, Ill.....	Shurtleff College.....	George M. Potter, A. M., president.
Urbana, Ill.....	University of Illinois.....	William C. Bagley, Ph. D.
Wheaton, Ill.....	Wheaton College.....	Wm. T. Rice, A. M.
Bloomington, Ind.....	Indiana University.....	Wm. W. Black, A. M.
Crawfordsville, Ind.....	Wabash College.....	George H. Tapy, M. A.
Earlham, Ind.....	Earlham College.....	J. H. Coffin, Ph. D.
Franklin, Ind.....	Franklin College.....	John L. Beyl, Ph. D.
Goshen, Ind.....	Goshen College.....	John E. Winter, A. M.
Greencastle, Ind.....	De Pauw University.....	William E. Smythe, A. B., acting.
Hanover, Ind.....	Hanover College.....	Wm. A. Millis, LL. D., president.
Lafayette, Ind.....	Purdue University.....	George L. Roberts, A. M.
Moore's Hill, Ind.....	Moore's Hill College.....	George H. Riebold, B. Ped.
Upland, Ind.....	Taylor University.....	I. B. Peavy, M. Ped.
Valparaiso, Ind.....	Valparaiso University.....	George W. Neet, Ph. D.
Vincennes, Ind.....	Vincennes University.....	William Halnon, A. M., president.
Ames, Iowa.....	Iowa State College of Agriculture and Me- chanic Arts.	G. M. Wilson, A. M.
Cedar Falls, Iowa.....	Iowa State Teachers College.....	C. P. Colegrove.
Cedar Rapids, Iowa.....	Coe College.....	Alex. C. Robbie, A. M.
Decorah, Iowa.....	Luther College.....	Oscar A. Tinglestad, A. M.
Des Moines, Iowa.....	Des Moines College.....	David B. Cloyd, Ph. B.
Do.....	Drake University.....	William F. Barr, A. M.
Dubuque, Iowa.....	Dubuque College.....	John Nolan, L. D.
Fairfield, Iowa.....	Parsons College.....	Hugh Buffum, Ph. D.
Fayette, Iowa.....	Upper Iowa University.....	Ellsworth Lowry, A. M.
Grinnell, Iowa.....	Grinnell College.....	L. D. Hartson.
Hopkinton, Iowa.....	Lenox College.....	Elizabeth R. Hendee, B. A.
Indianola, Iowa.....	Simpson College.....	Samuel Weir, Ph. D.
Iowa City, Iowa.....	State University of Iowa.....	Walter A. Jessup, Ph. D.
Iowa Falls, Iowa.....	Ellsworth College.....	Harold C. Bingham, A. M.
Lamoni, Iowa.....	Graceland College.....	F. M. McDowell, A. M.
Mount Pleasant, Iowa.....	Iowa Wesleyan College.....	Elmer E. Lymer, M. S.
Mount Vernon, Iowa.....	Cornell College.....	John E. Stout.
Oskaloosa, Iowa.....	Penn College.....	Ella H. Stokes, Ph. D.
Pella, Iowa.....	Central University of Iowa.....	John D. Dodson, A. M.
Sioux City, Iowa.....	Morningside College.....	E. A. Brown, A. M.
Storm Lake, Iowa.....	Buena Vista College.....	Nelle B. Drake, A. M.
Tabor, Iowa.....	Tabor College.....	Andrew D. Ward, Ph. D.
Toledo, Iowa.....	Leander Clark College.....	Ross Masters, Ph. M.
University Park, Iowa.....	Central Holiness University.....	Alta Boyer, Ped. B.
Atchison, Kans.....	Midland College.....	W. E. Tilberg, A. M.
Baldwin, Kans.....	Baker University.....	Lillian Scott, Ph. B.
Emporia, Kans.....	Emporia College.....	Conrad Vandervelde, A. M.
Highland, Kans.....	Highland College.....	Howard A. Dox, B. S.
Holton, Kans.....	Campbell College.....	Wm. C. T. Adams, LL. D., pres.
Lawrence, Kans.....	University of Kansas.....	A. S. Olin.
Lindsborg, Kans.....	Bethany College.....	Anna A. Carlson.
McPherson, Kans.....	McPherson College.....	D. W. Kurtz, D. D., president.
Manhattan, Kans.....	Kansas State Agricultural College.....	Edwin L. Holton, A. B.
Ottawa, Kans.....	Ottawa University.....	Herbert H. Foster, Ph. D.
Salina, Kans.....	Kansas Wesleyan University.....	Albert H. King, M. Pd.
Sterling, Kans.....	Cooper College.....	Kathryn Montgomery, A. B.
Topeka, Kans.....	Washburn College.....	Samuel G. Hefelbower, Ph. D.
Wichita, Kans.....	Fairmount College.....	Wilfred G. Binnewies, A. M.
Do.....	Friends University.....	Benj. W. Truesdell, A. B.
Winfield, Kans.....	Southwestern College.....	O. B. Baldwin, A. M.
Berea, Ky.....	Berea College.....	Cloyd N. McAllister, Ph. D.
Danville, Ky.....	Central University of Kentucky.....	Geo. J. Ramsey, LL. D.
Georgetown, Ky.....	Georgetown College.....	Alvis L. Rhoton, A. M.
Glasgow, Ky.....	Liberty College for Women.....	E. W. Elrod.
Lexington, Ky.....	State University of Kentucky.....	James T. Noe, A. M.
Do.....	Transylvania University.....	Wm. C. Bower, M. A.
Baton Rouge, La.....	Louisiana State University and Agricul- tural and Mechanical College.	
Mansfield, La.....	Mansfield Female College.....	Pearl Hogrefe, A. M.
New Orleans, La.....	H. Sophie Newcomb Memorial College.....	Margaret E. Cross.
Do.....	Leland University (colored).....	
Do.....	New Orleans University (colored).....	Charles M. Melden, president.
Do.....	Tulane University of Louisiana.....	Joseph M. Gwinn, A. M.
Bowdoin, Me.....	Bowdoin College.....	James L. McConaughy.
Lewiston, Me.....	Bates College.....	Halbert H. Britan, Ph. D.
Orono, Me.....	University of Maine.....	Arthur J. Jones, Ph. D.
Baltimore, Md.....	Johns Hopkins University.....	Edward F. Buchner, Ph. D.
Do.....	Morgan College (colored).....	Chas. A. Johnson, A. B.

X.—PROFESSORS OF PEDAGOGY AND HEADS OF DEPARTMENTS OF PEDAGOGY IN UNIVERSITIES AND COLLEGES—Continued.

Location.	University or college.	Name of professor or head of department.
Frederick, Md.....	Hood College.....	Joseph H. Apple, A. M., president.
Westminster, Md.....	Western Maryland College.....	James Widdowson, A. M.
Boston, Mass.....	Boston University.....	
Do.....	Simmons College.....	Sarah L. Arnold, A. M.
Cambridge, Mass.....	Harvard University.....	Henry W. Holmes, A. M.
Northampton, Mass.....	Smith College.....	Elizabeth K. Adams, Ph. D.
Norton, Mass.....	Wheaton College.....	Ida J. Everett, A. M.
South Hadley, Mass.....	Mount Holyoke College.....	Clayton C. Kohl, Ph. D.
Wellesley, Mass.....	Wellesley College.....	A. O. Norton.
Worcester, Mass.....	Clark University.....	W. H. Burnham, Ph. D.
Do.....	Clark College.....	Edmund C. Sanford, LL. D., pres.
Do.....	College of the Holy Cross.....	James A. Mullin, S. J.
Adrain, Mich.....	Adrain College.....	W. A. Robinson, Ph. D.
Alma, Mich.....	Alma College.....	George B. Randels, Ph. D.
Ann Arbor, Mich.....	University of Michigan.....	Allen S. Whitney, A. B.
Detroit, Mich.....	University of Detroit.....	
East Lansing, Mich.....	Michigan Agricultural College.....	Walter H. French, M. Ped.
Hillsdale, Mich.....	Hillsdale College.....	H. B. Larrabee, A. M.
Holland, Mich.....	Hope College.....	Lambert Eidson, A. M.
Kalamazoo, Mich.....	Kalamazoo College.....	Herbert L. Statson, LL. D., pres.
Olivet, Mich.....	Olivet College.....	E. G. Lancaster, Ph. D., president.
Collegeville, Minn.....	St. John's University.....	Alcuin Deutsch.
Minneapolis, Minn.....	University of Minnesota.....	George F. James, Ph. D.
Northfield, Minn.....	Carleton College.....	John E. Boodin, Ph. D.
Do.....	St. Olaf College.....	Julius Boraas, M. L.
St. Paul, Minn.....	Hamline University.....	George S. Innis, Ph. D.
Do.....	Macalester College.....	Andrew W. Anderson, A. M.
St. Peter, Minn.....	Gustavus Adolphus College.....	J. R. Reed.
Winona, Minn.....	College of St. Teresa.....	
Meridian, Miss.....	Meridian College.....	Marion F. Beeson, Ph. D.
Agricultural College, Miss.....	Mississippi Agricultural and Mechanical College.....	H. P. Hughes, B. S.
Clinton, Miss.....	Mississippi College.....	J. F. Wallace.
Columbus, Miss.....	Mississippi Industrial Institute and College.....	Anne L. Fant, A. B.
Port Gibson, Miss.....	Port Gibson Female College.....	Aramenta M. Kennard, A. M.
University, Miss.....	University of Mississippi.....	James W. Bell, A. M.
Albany, Mo.....	Palmer College.....	Charles F. Brown.
Cameron, Mo.....	Missouri Wesleyan College.....	A. B. Cope, A. M.
Canton, Mo.....	Christian University.....	Heber Nations, B. Pd.
Columbia, Mo.....	Christian College.....	Mrs. M. S. Darst.
Do.....	Stephens College.....	James M. Wood, A. M., president.
Do.....	University of Missouri.....	Werrett W. Charters, Ph. D.
Fayette, Mo.....	Central College.....	Clifford G. Thompson, A. M.
Lexington, Mo.....	Lexington College for Women.....	Charles L. Fowler, A. M.
Marshall, Mo.....	Missouri Valley College.....	John J. Dynes.
Morrisville, Mo.....	Scarritt-Morrisville College.....	H. A. Miller.
Nevada, Mo.....	Cottey College.....	Lois Cody.
Parkville, Mo.....	Park College.....	Matthew H. Wilson, B. D.
St. Louis, Mo.....	Washington University.....	Edgar J. Swift, Ph. D.
Springfield, Mo.....	Drury College.....	A. W. Trettien, Ph. D.
Tarkio, Mo.....	Tarkio College.....	John R. Jenison, A. B.
Warrenton, Mo.....	Central Wesleyan College.....	Frank Spohrer, B. S.
Missoula, Mont.....	University of Montana.....	William W. Kemp, Ph. D.
Bellevue, Nebr.....	Bellevue College.....	Wm. E. Nicholl, A. B.
Bethany, Nebr.....	Cotner University.....	Robert L. Hoff, A. B.
College View, Nebr.....	Union College.....	M. P. Robison.
Crete, Nebr.....	Doane College.....	Albert G. Heyhoe, A. M.
Grand Island, Nebr.....	Grand Island College.....	Forrest A. Kingsbury, A. M.
Hastings, Nebr.....	Hastings College.....	Martin Remp, A. B.
Lincoln, Nebr.....	University of Nebraska.....	Charles Fordyce, Ph. D.
Omaha, Nebr.....	University of Omaha.....	Walter N. Halsey.
University Place, Nebr.....	Nebraska Wesleyan University.....	Frank E. Howard.
York, Nebr.....	York College.....	C. E. Ashcraft, A. M.
Reno, Nev.....	University of Nevada.....	John C. Walson, Ph. D.
Hanover, N. H.....	Dartmouth College.....	W. Van D. Bingham.
Convent Station, N. J.....	College of St. Elizabeth.....	Sister Regina Clare, B. S.
New Brunswick, N. J.....	Rutgers College.....	Alexander J. Inglis, Ph. D.
Albuquerque, N. Mex.....	University of New Mexico.....	Charles E. Hodgkin, Ph. B.
State College, N. Mex.....	New Mexico College of Agriculture and Mechanic Arts.....	George E. Ladd, president.
Albany, N. Y.....	New York State College for Teachers.....	Leonard A. Blue, Ph. D.
Alfred, N. Y.....	Alfred University.....	Ford S. Clarke.
Aurora, N. Y.....	Wells College.....	Emil C. Wilm, Ph. D.
Brooklyn, N. Y.....	Adelphi College.....	E. N. Henderson, A. M.
Do.....	St. Francis College.....	
Canton, N. Y.....	St. Lawrence University.....	Robt. D. Ford, M. S.
Clinton, N. Y.....	Hamilton College.....	Wm. H. Squires, Ph. D.
Elmira, N. Y.....	Elmira College.....	John Tuttle, Ph. D.
Geneva, N. Y.....	Hobart College (Wm. Smith College).....	Ida E. Rogers.
Hamilton, N. Y.....	Colgate University.....	Melbourne S. Read, Ph. D.

X.—PROFESSORS OF PEDAGOGY AND HEADS OF DEPARTMENTS OF PEDAGOGY IN UNIVERSITIES AND COLLEGES—Continued.

Location.	University or college.	Name of professor or head of department.
Ithaca, N. Y.	Cornell University	George P. Bristol, A. M.
New Rochelle, N. Y.	College of New Rochelle	John A. Condon, Ph. D.
New York, N. Y.	College of the City of New York	Stephen P. Duggan, Ph. D.
Do.	Columbia University (Teachers College)	James E. Russell, LL. D., dean.
Do.	Hunter College of the City of New York	James M. Kieran, LL. D.
Do.	Manhattan College	Brother Jasper, F. S. C.
Do.	New York University	Thomas M. Balliet, Ph. D.
Rochester, N. Y.	University of Rochester	George M. Forbes, Ph. D.
Schenectady, N. Y.	Union University	Benj. H. Ripton, LL. D.
Syracuse, N. Y.	Syracuse University	Jacob R. Street, Ph. D.
Chapel Hill, N. C.	University of North Carolina	Marcus C. S. Noble, Ph. D.
Charlotte, N. C.	Elizabeth College	J. P. Miller.
Durham, N. C.	Trinity College	Eugene C. Brooks, A. B.
Elon College, N. C.	Elon College	W. C. Wicker.
Greensboro, N. C.	Greensboro College for Women	David F. Nicholson.
Hickory, N. C.	Lenoir College	R. L. Fritz.
Raleigh, N. C.	Peace Institute	Ada V. Womble.
Do.	Shaw University (colored)	George H. Stoddard, A. M.
Do.	Meredith College	Mary Shannon Smith, A. B.
Salisbury, N. C.	Livingstone College (colored)	W. R. Connors, A. B.
Wake Forest, N. C.	Wake Forest College	J. Henry Highsmith.
Weaverville, N. C.	Weaver College	Bertha P. Newell, Ph. B.
Winston-Salem, N. C.	Salem Academy and College	Edwin J. Heath.
Agricultural College, N. Dak.	North Dakota Agricultural College	Arland D. Weeks, M. A.
Fargo, N. Dak.	Fargo College	George D. Bivin, Ph. D.
Jamestown, N. Dak.	Jamestown College	Francis B. Taylor, Ph. D.
University, N. Dak.	University of North Dakota	Joseph Kennedy, A. M.
Ada, Ohio	Ohio Northern University	S. B. Davis.
Alliance, Ohio	Mount Union College	John B. Bowman, A. M.
Ashland, Ohio	Ashland College	Edward Byers, M. S.
Athens, Ohio	Ohio University	John J. Richeson, B. Ped.
Berea, Ohio	Baldwin-Wallace College	Fletcher D. Ward.
Bluffton, Ohio	Bluffton College	Noah E. Byers, A. M.
Cincinnati, Ohio	University of Cincinnati	Wm. P. Burris, A. M., dean.
Columbus, Ohio	Ohio State University	George W. Knight, Ph. D.
Defiance, Ohio	Defiance College	Edward L. Lawson, A. M.
Delaware, Ohio	Ohio Wesleyan University	A. R. Mead, Ph. D.
Findlay, Ohio	Findlay College	G. G. Bruer, A. M.
Granville, Ohio	Denison University	George T. Coleman, A. M.
Hiram, Ohio	Hiram College	Chester J. Marshall, A. M.
New Concord, Ohio	Muskingum College	Edward A. Miller, A. B.
Oberlin, Ohio	Oberlin College	Harvey C. Minnich, Ped. D.
Oxford, Ohio	Miami University	Dagny G. Sunne, Ph. D.
Do.	Oxford College for Women	Clara M. Hitchcock, Ph. D.
Painesville, Ohio	Lake Erie College	Thomas Bruce Birch, Ph. D.
Springfield, Ohio	Wittenberg College	Mary Isabel Park, Ph. D.
Tiffin, Ohio	Heidelberg University	A. Monroe Stowe, Ph. D.
Toledo, Ohio	Toledo University	Walter G. Clippinger, D. D., pres.
Westerville, Ohio	Otterbein University	Sarah C. B. Scarborough, M. Ped.
Wilberforce, Ohio	Wilberforce University (colored)	Walter J. Gifford, A. M.
Wooster, Ohio	University of Wooster	W. W. Weaver, A. M.
Yellow Springs, Ohio	Antioch College	W. A. Goodell, A. M.
Guthrie, Okla.	Methodist University of Oklahoma	Frank Dickinson, A. M.
Kingfisher, Okla.	Kingfisher College	W. W. Phelan, Ph. D.
Norman, Okla.	University of Oklahoma	John H. Bowers, Ph. D.
Stillwater, Okla.	Oklahoma Agricultural and Mechanical College	Thomas F. Marshall.
Tulsa, Okla.	Henry Kendall College	Wallace H. Lee.
Albany, Oreg.	Albany College	Edwin D. Ressler, A. M.
Corvallis, Oreg.	Oregon Agricultural College	Fred C. Ayer, M. A.
Eugene, Oreg.	University of Oregon	Wm. M. Proctor, A. M.
Forest Grove, Oreg.	Pacific University	Curtis P. Coe, B. L.
McMinnville, Oreg.	McMinnville College	Russell Lewis.
Newberg, Oreg.	Pacific College	Wm. T. Foster, LL. D., president.
Portland, Oreg.	Reed College	C. L. Sherman.
Salem, Oreg.	Willamette University	William F. Curtis, Litt. D., pres.
Allentown, Pa.	Allentown College for Women	G. T. Ettinger, Ph. D.
Do.	Muhlenberg College	C. C. Peters, A. M.
Annaville, Pa.	Lebanon Valley College	Harry H. Wylie, A. M.
Beaver Falls, Pa.	Geneva College	Samuel H. Gapp, D. D.
Bethlehem, Pa.	Moravian College	Percy Hughes, Ph. D.
Do.	Moravian Seminary and College for Women	Kate Gordon, Ph. D.
Bryn Mawr, Pa.	Bryn Mawr College	Wm. L. Gooding, Ph. D.
Carlisle, Pa.	Dickinson College	Anna J. McKeag, LL. D., president.
Chambersburg, Pa.	Wilson College	George L. Omwake, Ped. D., pres.
Collegeville, Pa.	Ursinus College	Charles F. Sanders, A. M.
Gettysburg, Pa.	Pennsylvania College	Frank B. Sawvel, Ph. D.
Greenville, Pa.	Thiel College	Luther B. Henderson, A. M.
Grove City, Pa.	Grove City College	Charles C. Ellis, Ph. D.
Huntingdon, Pa.	Juniata College	

X.—PROFESSORS OF PEDAGOGY AND HEADS OF DEPARTMENTS OF PEDAGOGY IN UNIVERSITIES AND COLLEGES—Continued.

Location.	University or college.	Name of professor or head of department.
Lewisburg, Pa.....	Bucknell University.....	Thomas A. Edwards, A. M.
Mechanicsburg, Pa.....	Irving College.....	A. B. Van Ormer, Ped. D.
New Wilmington, Pa..	Westminster College.....	John A. Shott, A. M.
Philadelphia, Pa.....	Temple University.....	Laura H. Carnell, Litt. D.
Do.....	University of Pennsylvania.....	Frank P. Graves.
Pittsburgh, Pa.....	Pennsylvania College for Women.....	Cora H. Coolidge, B. L.
Do.....	University of Pittsburgh.....	Will G. Chambers, M. S.
Selinsgrove, Pa.....	Susquehanna University.....	William Noetling, A. M.
South Bethlehem, Pa..	Lehigh University.....	Percy Hughes, Ph. D.
State College, Pa.....	Pennsylvania State College.....	Louis W. Rapeer, Ph. D.
Swarthmore, Pa.....	Swarthmore College.....	Bird T. Baldwin, Ph. D.
Villanova, Pa.....	Villanova College.....	John C. Fisher, A. M.
Waynesburg, Pa.....	Waynesburg College.....	W. T. Shepherd, Ph. D.
San Juan, P. R.....	University of Porto Rico.....	Fred K. Fleagle, Ph. D.
Kingston, R. I.....	Rhode Island State College.....	Lester W. Boardman, A. M.
Providence, R. I.....	Brown University.....	Walter B. Jacobs, A. M.
Clinton, S. C.....	Presbyterian College of South Carolina.....	Daniel J. Brimm, D. D.
Columbus, S. C.....	Benedict College (colored).....	Sarah H. Chester.
Do.....	University of South Carolina.....	Patterson Wardlaw, LL. D.
Greenville, S. C.....	Furman University.....	O. O. Fletcher, D. D.
Do.....	Greenville Female College.....	Susan Dawson.
Greenwood, S. C.....	Lander College.....	Elizabeth Alexander, A. B.
Orangeburg, S. C.....	Clafin University (colored).....	J. E. Wallace, A. B.
Brookings, S. Dak.....	South Dakota State College of Agriculture and Mechanic Arts.	B. E. McProud, A. M.
Mitchell, S. Dak.....	Dakota Wesleyan University.....	Herbert P. Patterson, Ph. D.
Vermillion, S. Dak.....	University of South Dakota.....	Wallace F. Jones, Ph. D.
Yankton, S. Dak.....	Yankton College.....	Wm. J. McMurtry, LL. D.
Bristol, Tenn.....	King College.....	King A. Hagy, A. M.
Chattanooga, Tenn.....	University of Chattanooga.....	W. W. Hooper, D. D.
Harrogate, Tenn.....	Lincoln Memorial University.....	Jessie Lewis.
Jackson, Tenn.....	Union University.....	A. T. Barrett, Ph. D.
Jefferson City, Tenn....	Carson and Newman College.....	Wm. L. Gentry, B. S.
Knoxville, Tenn.....	University of Tennessee.....	Edward E. Rall, Ph. D.
Maryville, Tenn.....	Maryville College.....	Homer L. Ellis, M. A.
Milligan, Tenn.....	Milligan College.....	Willis B. Boyd, A. M.
Nashville, Tenn.....	Fisk University.....	Belle R. Parmenter.
Nashville, Tenn.....	George Peabody College for Teachers.....	Bruce R. Payne, Ph. D., president.
Abilene, Tex.....	Simmons College.....	J. D. Sandefer, Ph. D., president.
Austin, Tex.....	University of Texas.....	W. S. Sutton, LL. D.
Belton, Tex.....	Baylor College.....	Peyton Jacob, A. M.
Brownwood, Tex.....	Howard-Payne College.....	F. E. Smith, A. M.
Fort Worth, Tex.....	Texas Woman's College.....	W. C. Bryant, B. A.
Do.....	Texas Christian University.....	John W. Kinsey, A. B.
Georgetown, Tex.....	Southwestern University.....	C. A. Nichols, Ph. D.
Sherman, Tex.....	Austin College.....	Chester Johnson, A. B.
Tehuacana, Tex.....	Westminster College.....	John C. Williams, D. D., president.
Waco, Tex.....	Baylor University.....	J. H. Stoutenmeyer, Ph. D.
Waxahachie, Tex.....	Trinity University.....	Woodford M. Liggitt.
Salt Lake City, Utah...	University of Utah.....	Milton Bennion, M. A.
Burlington, Vt.....	University of Vermont and State Agricultural College.	James Franklin Messenger, Ph. D.
Middlebury, Vt.....	Middlebury College.....	Edward D. Collins, Ph. D.
Abingdon, Va.....	Martha Washington College.....	R. L. Durham.
Bridgewater, Va.....	Bridgewater College.....	Wm. T. Sanger, M. A.
Charlottesville, Va.....	University of Virginia.....	Wm. H. Heck, A. M.
Emory, Va.....	Emory and Henry College.....	Raymond Bellamy, A. M.
Hollins, Va.....	Hollins College.....	Win. H. Pleasants, LL. D.
Lynchburg, Va.....	Randolph-Macon Woman's College.....	E. B. Crooks, Ph. D.
Manassas, Va.....	Eastern College.....	Hervin U. Roop, LL. D., president.
Richmond, Va.....	Richmond College.....	J. W. Norman.
Salem, Va.....	Roanoke College.....	F. V. N. Painter.
Do.....	Roanoke Woman's College.....	E. Grace Hunton.
Williamsburg, Va.....	College of William and Mary.....	Henry E. Bennett, A. B.
Pullman, Wash.....	State College of Washington.....	Alfred A. Cleveland, Ph. D.
Seattle, Wash.....	University of Washington.....	Frederick E. Bolton, Ph. D.
Tacoma, Wash.....	College of Puget Sound.....	R. T. Holland.
Walla Walla, Wash.....	Whitman College.....	Wm. M. Kern, A. M.
Bethany, W. Va.....	Bethany College.....	H. Newton Miller.
Buckhannon, W. Va....	West Virginia Wesleyan College.....	Francis Shreve, A. M.
Morgantown, W. Va....	West Virginia University.....	Jasper N. Deahl, Ph. D.
Appleton, Wis.....	Lawrence College.....	Lester B. Rogers, A. M.
Beloit, Wis.....	Beloit College.....	Almon W. Burr, B. D.
Madison, Wis.....	University of Wisconsin.....	Edward C. Elliott, Ph. D.
Milton, Wis.....	Milton College.....	Wm. C. Daland, D. D., president.
Milwaukee, Wis.....	Milwaukee Downer College.....	Mina Kerr, Ph. D.
Ripon, Wis.....	Ripon College.....	Wm. J. Mutch, Ph. D.
Waukesha, Wis.....	Carroll College.....	Samuel B. Ray, M. A.
Laramie, Wyo.....	University of Wyoming.....	John O. Creager, A. M.

XI.—PRESIDENTS AND DEANS OF PROFESSIONAL SCHOOLS.

1.—SCHOOLS OF THEOLOGY.

Location.	Name of institution.	President or dean.
St. Bernard, Ala.....	St. Bernard College and Abbey (R. C.).....	Bernard Menges, D. D., O. S. B.
Selma, Ala.....	Payne University Theological Department (A. M. E.).	William H. Bowen, D. D.
Talladega, Ala.....	Talladega College Theological Department (Cong.).	John M. P. Metcalf, D. D.
Tuscaloosa, Ala.....	Stillman Institute (Pres.).....	James G. Snedecor, LL. D.
Argenta, Ark.....	Shorter College Theological Department (A. M. E.).	J. N. Campbell, B. D.
Little Rock, Ark.....	Arkansas Baptist College School of Theology...	Joseph A. Booker, D. D.
Do.....	St. John's Diocesan Seminary (R. C.).....	Winand H. Aretz, A. M.
Berkeley, Cal.....	Berkeley Bible Seminary (Disc.).....	Claiborne M. Hill, D. D.
Do.....	Pacific Coast Baptist Theological Seminary....	Charles Sumner Nash, D. D.
Do.....	Pacific Theological Seminary (Cong.).....	Earl Morse Wilbur, D. D.
Do.....	Pacific Unitarian School for the Ministry.....	Ezra A. Healy, D. D.
Los Angeles, Cal.....	University of Southern California, MacLay College of Theology (M. E.).	
Menlo Park, Cal.....	St. Patrick's Seminary (R. C.).....	Henry A. Ayrinhac, S. S.
San Anselmo, Cal.....	San Francisco Theological Seminary (Presb.)..	Warren Hall Landon, D. D.
San Francisco, Cal.....	Church Divinity School of the Pacific (P. E.)...	William F. Nichols, D. D.
Denver, Col.....	Hill School of Theology (M. E.).....	Harris Franklin Rall, Ph. D.
Hartford, Conn.....	Hartford Theological Seminary (Cong.).....	William Douglas MacKenzie, D. D., LL. D.
Middletown, Conn.....	Berkeley Divinity School (P. E.).....	Samuel Hart, D. D., LL. D.
New Haven, Conn.....	Yale University School of Religion (Cong.)....	Charles Reynolds Brown, M. A.
Washington, D. C.....	Catholic University of America, School of Sacred Sciences (R. C.).	Charles Francis Aiken, D. D.
Do.....	Howard University Theological Department (Interdenominational).	Isaac Clark, D. D.
St. Leo, Fla.....	St. Leo College and Abbey (R. C.).....	Charles H. Mohr, O. S. B., D. D.
Atlanta, Ga.....	Atlanta Theological Seminary (Cong.).....	E. Lyman Hood, Ph. D.
Do.....	Morehouse College Divinity School.....	C. C. Smith, D. D.
Do.....	Morris Brown College Turner Theological Seminary (A. M. E.).	P. W. Greatheart, D. D.
South Atlanta, Ga.....	Gammon Theological Seminary (M. E.).....	S. E. Idleman, D. D.
Aurora, Ill.....	Aurora College Biblical Department (Advent Chris.).	Orrin R. Jenks, D. B.
Bourbonnais, Ill.....	St. Viateur's College Theological Seminary (R. C.).	G. M. Legris, D. D.
Chicago, Ill.....	Bethany Bible School.....	
Do.....	Chicago Theological Seminary (Cong.).....	Ozora Stearns Davis, D. D.
Chicago (Maywood), Ill.....	Evangelical Lutheran Theological Seminary....	Elmer F. Krauss, D. D.
Chicago, Ill.....	McCormick Theological Seminary (Presb.).....	James G. K. McClure, D. D., LL. D.
Do.....	University of Chicago Divinity School (Bapt.).	Shailer Mathews, D. D.
Do.....	Western Theological Seminary (P. E.).....	William C. De Witt, S. T. D.
Evanston, Ill.....	Garrett Biblical Institute, Northwestern University (M. E.).	Charles M. Stuart, D. D., LL. D.
Do.....	Norwegian-Danish Theological Seminary, Northwestern University (M. E.).	Nels E. Simonsen.
Do.....	Swedish Theological Seminary, Northwestern University (M. E.).	Carl G. Wallenius.
Greenville, Ill.....	Greenville College School of Theology (Free Meth.).	John la Due, A. M.
Naperville, Ill.....	Evangelical Theological Seminary in cooperation with North Western College (Ev. Asso.)	S. J. Gamertsfelder, D. D.
Rock Island, Ill.....	Augustana College Theological Seminary (Ev. Luth.).	Gustav Andreen, Ph. D., R. N. O., K. V. O.
Springfield, Ill.....	Concordia College Theological Seminary (Ev. Luth.).	Reinhold Pieper, A. B.
Merom, Ind.....	Union Christian College Biblical Department (Chris.).	Daniel Albright Long, D. D., LL. D.
St. Meinrad, Ind.....	St. Meinrad College Ecclesiastical Seminary (R. C.).	Gregory Bechtold, O. S. B.
Upland, Ind.....	Taylor University Reade Theological Seminary (M. E.).	Newton Wray, B. D., D. D.
Des Moines, Iowa.....	Drake University College of the Bible (Chris.)..	Sherman Kirk, A. M.
Do.....	Grand View College Theological School (Luth.).	Theodore Knudsen.
Dubuque, Iowa.....	Dubuque German Theological Seminary (Presb.).	W. O. Ruston, D. D., LL. D.
Do.....	Wartburg Theological Seminary (Ev. Luth.).	M. Fritschel, A. M.
Atchison, Kans.....	Western Theological Seminary of Ev. Luth. Church, Midland College.	Holmes Dysinger, D. D.
Kansas City, Kans.....	Kansas City Baptist Theological Seminary....	Philip W. Crannell, D. D.
Do.....	Kansas City University College of Theology (Meth. Prot.).	Herbert T. Stephens, D. D.
Topeka, Kans.....	Kansas Theological School.....	Frank H. Millspaugh, D. D.
Kingswood, Ky.....	Department of Theology, Christian Ethics and Metaphysics, Kingswood College.	J. W. Hughes, Ph. B.
Lexington, Ky.....	College of the Bible, Transylvania University (Chris.).	Hall L. Calhoun, Ph. D., dean.

XI.—PRESIDENTS AND DEANS OF PROFESSIONAL SCHOOLS—Continued.

1.—SCHOOLS OF THEOLOGY—Continued.

Location.	Name of institution.	President or dean.
Louisville, Ky.....	Louisville Christian Bible School (Nonsect.)...	William H. Dickerson, principal.
Do.....	Presbyterian Theological Seminary of Kentucky.	Charles R. Hemphill, D. D., LL. D.
Do.....	Southern Baptist Theological Seminary.....	Edgar Y. Mullins, D. D., LL. D.
Do.....	State University Theological Department (Bapt.).	Marshall B. Lanier, B. D.
New Orleans, La.....	Leland University, Theological Department (Bapt.).	I. Newton Earle.
Bangor, Me.....	Bangor Theological Seminary (Cong.).....	Davis N. Beach, D. D.
Baltimore, Md.....	St. Mary's Seminary (R. C.).....	E. R. Dyer, S. S., D. D.
Emmitsburg, Md.....	Mount St. Mary College, Ecclesiastical Seminary (R. C.).	John J. Tierney, D. D.
Westminster, Md.....	Westminster Theological Seminary (Meth. Prot.).	Hugh Latimer Elderdice, D. D.
Woodstock, Md.....	Woodstock College (R. C.).....	Joseph F. Hanselman, S. J.
Boston, Mass.....	Boston University School of Theology (M. E.).	Laurens J. Birney, D. D.
Boston (Brighton), Mass.	St. John's Boston Ecclesiastical Seminary (R. C.).	John B. Peterson, Ph. D.
Cambridge, Mass.....	Andover Theological Seminary, Harvard University (Cong.).	Albert Parker Fitch, D. D.
Do.....	Episcopal Theological Seminary.....	George Hodges, D. D., D. C. L.
Do.....	Harvard University Divinity School (Nonsect.).	William Wallace Fenn, D. D.
Do.....	New Church Theological School (Ch. of N. Jeru.).	William L. Worcester.
Newton Center, Mass..	Newton Theological Institution (Bapt.).....	George Edwin Horr, D. D.
Tufts College, Mass.....	Tufts College, Crane Theological Seminary (Univ.).	Lee S. McCollester, D. D.
Adrian, Mich.....	Adrian Theological Seminary, Adrian College (Meth. Prot.).	O. R. Stilson, A. B.
Grand Rapids, Mich...	Calvin College Theological Seminary (Chris. Ref. Ch.).	William Heyns.
Hancock, Mich.....	Suomi College Theological Seminary (Finnish Ev. Luth.).	John K. Nikander, D. D.
Holland, Mich.....	Western Theological Seminary (Ref. Ch. in Amer.).	John Walter Beardslee, D. D., LL. D.
Owosso, Mich.....	Bible Holiness Seminary School of Theology...	Rev. C. G. Taylor.
Collegeville, Minn.....	St. John's University Ecclesiastical Seminary (R. C.).	Peter Engel, O. S. B.
Faribault, Minn.....	Seabury Divinity School (P. E.).....	Frederick F. Kramer, Ph. D., D. D.
Minneapolis, Minn.....	Augsburg Seminary (Ev. Luth.).....	George Sverdrup, M. A.
Red Wing, Minn.....	Red Wing Theological Seminary, Red Wing College (Ev. Luth.).	Edward William Schmidt, M. A.
St. Paul, Minn.....	German Evangelical Lutheran Seminary.....	H. Ernst, D. D.
Do.....	Evangelical Norwegian Luther Seminary.....	Johs. Ylvisaker.
Do.....	St. Paul Theological Seminary (R. C.).....	Francis J. Schaefer, D. D.
St. Paul (St. Anthony Park), Minn.	Seminary of the United Norwegian Lutheran Church.	Marcus Olans Böckman, D. D.
Jackson, Miss.....	J. P. Campbell College, Department of Theology (A. M. E.).	J. Allen Bynoe.
Meridian, Miss.....	Meridian Male College, School of Theology and Evangelism (Nonsect.).	M. A. Beeson, S. D.
Canton, Mo.....	Christian University College of the Bible.....	Henry B. Robinson, Ph. D.
St. Louis, Mo.....	Concordia Theological Seminary (Ev. Luth.).	Francis Pieper, D. D.
Do.....	German (Eden) Evangelical Missouri College (German Ev. Synod of N. A.).	William Becker.
Do.....	Kenrick Theological Seminary (R. C.).....	M. S. Ryan, C. M., D. D.
Do.....	St. Louis University School of Divinity (R. C.).	Francis J. O'Boyle, S. J.
Warrenton, Mo.....	Central Wesleyan College German Evangelical Seminary (M. E.).	Friedrich Munz, D. D.
Blair, Nebr.....	Dana College, Trinity Seminary (Ev. Luth.).	P. S. Vig.
Omaha, Nebr.....	Presbyterian Theological Seminary.....	Albert B. Marshall, D. D., LL. D.
Bloomfield, N. J.....	Bloomfield Theological Seminary (Presb.).....	David R. Frazer, D. D.
Madison, N. J.....	Drew Theological Seminary (M. E.).....	Ezra Squier Tipple, D. D.
New Brunswick, N. J..	Theological Seminary of the Reformed Church in America.	J. Preston Searle, D. D.
Princeton, N. J.....	Princeton Theological Seminary of the Presbyterian Church.	Benjamin B. Warfield, D. D., LL. D.
South Orange, N. J....	Diocesan Seminary of the Immaculate Conception, Seton Hall College (R. C.).	Mgr. James F. Mooney, acting president.
Alfred, N. Y.....	Alfred University Theological Seminary (7th Day Bapt.).	Arthur E. Main, D. D.
Auburn, N. Y.....	Auburn Theological Seminary (Presb.).....	George B. Stewart, D. D., LL. D.
Brooklyn, N. Y.....	St. John's College Diocesan Theological Seminary (R. C.).	C. J. Gorman, C. M.
Buffalo, N. Y.....	German Martin Luther Seminary.....	Rudolph Graban.
Canton, N. Y.....	Canton Theological School of St. Lawrence University (Univ.).	John Murray Atwood, D. D.

XI.—PRESIDENTS AND DEANS OF PROFESSIONAL SCHOOLS—Continued.

1.—SCHOOLS OF THEOLOGY—Continued.

Location.	Name of institution.	President or dean.
Esopus, N. Y.....	Mount St. Alphonsus Theological Seminary, Redemptorist College (R. C.).	John G. Kissner, C. SS. R.
Geneva, N. Y.....	De Lancy Divinity School (P. E.).....	Thomas B. Berry, M. A., warden.
Hamilton, N. Y.....	Theological Seminary, Colgate University (Nonsect.).	William H. Allison, Ph. D.
Hartwick Seminary, N. Y.	Hartwick Seminary (Ev. Luth.).....	Alfred Hiller, D. D.
Houghton, N. Y.....	Houghton Wesleyan Methodist Theological Seminary.	James S. Luckey, president.
New York (City), N. Y.	Bible Teachers' Training School (Interdenominational).	William Hoge Marquess, D. D., LL. D.
Do.....	General Theological Seminary of the Protestant Episcopal Church.	Wilford Lash Robbins, D. D., LL. D.
Do.....	Jewish Theological Seminary.....	Solomon Schechter, Litt. D.
Do.....	Union Theological Seminary (Interdenominational).	Francis Brown, D. D., LL. D.
Niagara University, N. Y.	Niagara University Seminary of Our Lady of Angels (R. C.).	M. A. Drennan, C. M.
North Chili, N. Y.....	A. M. Chesbrough Seminary (Chris.).....	Carl L. Howland, Ph. B., preceptor.
Rochester, N. Y.....	Rochester Theological Seminary (Bapt.).....	Joseph W. A. Stewart, D. D., LL. D.
Do.....	St. Bernard's Theological Seminary (R. C.)...	James J. Hartley, D. D., pro-rector.
St. Bonaventure, N. Y.	St. Bonaventure Seminary and College (R. C.).	Fidelis J. Reynolds, O. F. M.
Yonkers, N. Y.....	St. Joseph's Seminary, Cathedral College (R. C.)	John P. Chadwick, D. D.
Ayden, N. C.....	Ayden Seminary (Free Will Bapt.).....	J. E. Sawyer, A. B.
Belmont, N. C.....	Belmont Abbey Seminary (R. C.).....	Leo Haid, O. S. B., D. D.
Charlotte, N. C.....	Biddle University School of Theology (Presb.).	H. L. McCrorey, D. D.
Raleigh, N. C.....	Shaw University Theological School (Bapt.)..	Nicholas F. Roberts, D. D., dean.
Salisbury, N. C.....	Hood Theological Seminary of Livingston College (A. M. E. Z.).	William H. Goler, D. D.
Wilson, N. C.....	Atlantic Christian College, Department of Ministerial Training.	Jesse C. Caldwell, B. D.
Ashland, Ohio.....	Ashland University, Theological Department (Dunkard).	J. Allen Miller, D. D.
Berea, Ohio.....	Baldwin-Wallace College, Nast Theological Seminary (M. E.).	Charles W. Hertzler, D. D.
Carthagen, Ohio.....	St. Charles Borromeo Theological Seminary (R. C.).	Paulinus Trost, C. PP. S.
Cincinnati, Ohio.....	Hebrew Union College.....	Kaufman Kohler, Ph. D.
Do.....	Lane Theological Seminary (Presb.).....	William McKibbin, D. D., LL. D.
Cleveland, Ohio.....	St. Mary's Theological Seminary (R. C.).....	J. P. Michaelis, rector.
Columbus, Ohio.....	Evangelical Lutheran Theological Seminary, Capital University.	F. W. Stelthorn, D. D.
Dayton, Ohio.....	Bonebrake Theological Seminary (U. Breth.).	Josiah P. Landis, D. D.
Do.....	Central Theological Seminary of the Reformed Church in the United States.	Henry J. Christman, D. D.
Defiance, Ohio.....	Christian Biblical Institute, Defiance College..	George C. Enders, D. D.
Ellenora, Ohio.....	Mount St. Mary's Seminary of the West (R. C.)	Francis J. Beekman, S. T. D.
Findlay, Ohio.....	Findlay College, Department of Theology (Church of God).	William Harris Guyer, A. M. principal.
Gambier, Ohio.....	Kenyon College Divinity School (P. E.).....	Hosea W. Jones, D. D.
Oberlin, Ohio.....	Oberlin College Theological Seminary (Nonsect.).	Edward Increase Bosworth, D. D.; George Walter Fiske, A. M.
Springfield, Ohio.....	Wittenberg College, Hamma Divinity School (Ev. Luth.).	David H. Bauslin.
Wilberforce, Ohio.....	Wilberforce University, Payne Theological Seminary (A. M. E.).	George F. Woodson, D. D.
Xenia, Ohio.....	United Presbyterian Theological Seminary....	Joseph Kyle, D. D., LL. D.
Eugene, Oreg.....	Eugene Bible University (Chris. or Disc.).....	Eugene C. Sanderson, D. D.
Beatty, Pa.....	St. Vincent's Seminary (R. C.).....	Leander Schnerr, O. S. B.
Bethlehem, Pa.....	Moravian College Theological Seminary.....	Augustus Schultz, L. H., D. D.
Chester, Pa.....	Crozer Theological Seminary (Bapt.).....	Milton G. Evans, D. D.
Gettysburg, Pa.....	Theological Seminary of the General Synod of Ev. Luth. Church in United States.	J. A. Singmaster, D. D.
Lancaster, Pa.....	Theological Seminary of the Reformed Church in the United States.	John C. Bowman, D. D.
Lincoln University, Pa.	Lincoln University Theological Department (Presb.).	Frank H. Ridgeley, B. D.
Meadville, Pa.....	Meadville Theological Seminary (Unita.).....	Franklin C. Southworth, D. D.
Overbrook, Pa.....	St. Charles Borromeo Seminary (R. C.).....	Henry T. Drumgoole, LL. D., rector.
Philadelphia (Mount Airy), Pa.	Lutheran Theological Seminary at Philadelphia.	Henry Fyster Jacobs, D. D.

XI.—PRESIDENTS AND DEANS OF PROFESSIONAL SCHOOLS—Continued.

1.—SCHOOLS OF THEOLOGY—Continued.

Location.	Name of institution.	President or dean.
Philadelphia, Pa.....	Protestant Episcopal Church Divinity School..	William M. Groton, S. T. D.
Philadelphia (German-town), Pa.	St. Vincent's Seminary (R. C.).....	Frederick J. Maune, C. M.
Philadelphia, Pa.....	Temple University Theological School (Non-sect.).	Walter B. Shumway, D. D.
Pittsburgh, Pa.....	Pittsburgh Theological Seminary (U. Presb.)..	John McNaugher, D. D., LL. D.
Do.....	Reformed Presbyterian Theological Seminary.	D. B. Wilson, D. D., senior professor.
Do.....	Western Theological Seminary (Presb.).....	James A. Kelso, Ph. D., LL. D.
Selinsgrove, Pa.....	Susquehanna University School of Theology (Ev. Luth.).	Franklin P. Manhart, D. D.
Villanova, Pa.....	College of St. Thomas of Villanova, Augustinian Scholastic Department (R. C.).	Joseph A. Hickey, O. S. A., J. C. D., regent of studies.
Columbia, S. C.....	Allen University, Department of Theology (A. M. E.).	C. H. Rembert, D. D.
Do.....	Columbia Theological Seminary (Presb.).....	Thornton Whaling, D. D.
Do.....	Lutheran Theological Seminary of the United Synod.	Andrew G. Voight, D. D., LL. D.
Due West, S. C.....	Erskine Theological Seminary (A. R. Presb.)..	F. Y. Pressly, D. D.
Clarksville, Tenn.....	Divinity School of Southwestern Presbyterian University.	William Dinwiddie, LL. D., chancellor.
Jackson, Tenn.....	Lane College Theological School (Colo. M. E.)..	F. H. Rodgers, B. D., D. D.
Kimberlin Heights, Tenn.	Johnson Bible College.....	Ashley Sidney Johnson, LL. D.
Knoxville, Tenn.....	Knoxville College Theological School (Un. Presb.).	Henry J. Bell, B. D.
Nashville, Tenn.....	Methodist Training School for Christian Workers.	William F. Quillian, B. D.
Do.....	Vanderbilt University Biblical Department (M. E. South).	Wilbur F. Tillett, D. D.
Do.....	Walden University Theological Department (M. E.).	Henry H. Oneal, D. D.
Sewanee, Tenn.....	University of the South Theological Department (P. E.).	Cleveland Keith Benedict, D. D., LL. D.
Austin, Tex.....	Austin Presbyterian Theological Department.	Robert E. Vinson, D. D., LL. D.
Fort Worth, Tex.....	Southwestern Baptist Theological Seminary..	Benajah H. Carroll, D. D., LL. D.
Do.....	Brite College of the Bible, Texas Christian University.	Frederick D. Kershner, LL. D.
Marshall, Tex.....	Bishop College Theological Department (Bapt.)	Charles H. Maxson.
Peniel, Tex.....	Peniel University Department of Theology (Holiness).	James B. Chapman, B. D.
Seguin, Tex.....	Guadalupe College Department of Theology (Bapt.).	William B. Ball, D. D.
Tyler, Tex.....	Texas College Theological Department (Colo. M. E.).	G. L. Tyns, A. M.
Waco, Tex.....	Paul Quinn College Department of Theology (A. M. E.).	D. S. Moten, Ph. D., D. D.
Bridgewater, Va.....	Bridgewater College Bible Department (Breth.)	Samuel N. McCann, B. F.
Lynchburg, Va.....	Virginia Theological Seminary and College (Nonsect.).	Bernard Tyrrell, D. D.
Petersburg, Va.....	Bishop Payne Divinity School (P. E.).....	C. B. Bryan, D. D.
Richmond, Va.....	Union Theological Seminary in Virginia (Presb.).	Walter W. Moore, D. D., LL. D.
Do.....	Virginia Union University Theological Department (Bapt.).	George Rice Hovey, D. D.
Theological Seminary, Va.	Theological Seminary of the Protestant Episcopal Church in Virginia.	Angus Crawford, D. D.
Nashotah, Wis.....	Nashotah House (P. E.).....	Edward A. Larrabee, D. D.
Oconomowoc, Wis.....	College of the Immaculate Conception Theological School (R. C.).	Francis Miller, C. SS. R.
Plymouth, Wis.....	Provincial Seminary of the Reformed Church, Mission House College.	E. A. Hofer, D. D.
St. Francis, Wis.....	Provincial Seminary of St. Francis de Sales (R. C.).	Joseph Rainer, V. G.
Wauwatosa, Wis.....	Evangelical Lutheran Theological Seminary..	John Schaller.

2.—SCHOOLS OF LAW.

University, Ala.....	University of Alabama, Law Department.....	Albert J. Farrah, LL. B.
Little Rock, Ark.....	University of Arkansas, Law Department.....	John H. Carmichael, LL. B.
Berkeley, Cal.....	University of California School of Jurisprudence.	William C. Jones, M. A.
Los Angeles, Cal.....	University of Southern California College of Law.	Frank M. Porter, LL. M.
Do.....	Southwestern University, School of Law.....	Hugh E. Willis, LL. B.
Oakland, Cal.....	Oakland College of Law.....	W. J. Connell.

XI.—PRESIDENTS AND DEANS OF PROFESSIONAL SCHOOLS—Continued.

2.—SCHOOLS OF LAW—Continued.

Location.	Name of institution.	President or dean.
San Francisco, Cal.....	Hastings College of Law, University of California.	Edward R. Taylor, M. D.
Do.....	Law Department of St. Ignatius University...	Matt. I. Sullivan, LL. D.
Do.....	San Francisco Law School.....	James A. Ballentine, A. B.
Santa Clara, Cal.....	University of Santa Clara Institute of Law....	James H. Campbell, J. D.
Stanford University, Cal.	Leland Stanford Junior University, Law Department.	Fred. C. Woodward, LL. M.
Boulder, Colo.....	University of Colorado, Colorado College of Law	John D. Fleming, LL. D.
Denver, Colo.....	University of Denver Law School.....	George C. Manly, LL. B.
New Haven, Conn.....	Yale University Law School.....	Henry Wade Rogers, LL. D.
Washington, D. C.....	Catholic University of America School of Law.	Thomas C. Carrigan, LL. D.
Do.....	Georgetown University School of Law.....	George E. Hamilton, LL. D.
Do.....	George Washington University, Department of Law.	Everett Fraser, LL. B.
Do.....	Howard University Law School.....	Benjamin F. Leighton, LL. D.
Do.....	National University Law School.....	Charles F. Carusi, LL. M.
Do.....	Washington College of Law.....	Ellen Spencer Mussey, LL. M.
Deland, Fla.....	John B. Stetson University College of Law....	Richmond A. Rasco, LL. B.
Gainesville, Fla.....	University of Florida College of Law.....	Thomas W. Hughes, LL. M.
Athens, Ga.....	University of Georgia, Law Department.....	Sylvanus Morris, B. L.
Atlanta, Ga.....	Atlanta Law School.....	Hamilton Douglas, LL. B.
Macon, Ga.....	Mercer University Law School.....	Emory Speer, LL. D.
Moscow, Idaho.....	University of Idaho College of Law.....	George D. Ayers, LL. B.
Bloomington, Ill.....	Illinois Wesleyan University, Bloomington Law School.	Charles L. Capen, A. M.
Chicago, Ill.....	Chicago Law School.....	John J. Tobias, LL. B., chancellor.
Do.....	Chicago-Kent Law School.....	Edmund W. Burke, A. M.
Do.....	Illinois College of Law of De Paul University..	Charles L. Mahoney, LL. D.
Do.....	Illinois Law School, Evening Law School of De Paul University.	Francis X. Busch, LL. D.
Do.....	Hamilton College of Law.....	Shelley Butler Neltner, LL. D.
Do.....	John Marshall Law School.....	Edward T. Lee, LL. B.
Do.....	Loyola University, Lincoln College of Law....	William Dillon, LL. D.
Do.....	Northwestern University, Union College of Law	John H. Wigmore, LL. D.
Do.....	University of Chicago Law School.....	James Parker Hall, LL. B.
Urbana, Ill.....	University of Illinois College of Law.....	Oliver A. Harker, LL. D.
Bloomington, Ind.....	Indiana University School of Law.....	Enoch G. Hogate, LL. D.
Danville, Ind.....	Central Normal College School of Law.....	Solon A. Enloe, A. B.
Indianapolis, Ind.....	American Central Law School.....	Theophilus J. Moll, LL. M.
Do.....	Indianapolis College of Law.....	Ulric Z. Wiley, LL. D.
Do.....	University of Indianapolis, Indiana Law School.	James A. Rohbach, LL. B.
Muncie, Ind.....	Muncie Normal Institute, Department of Law.	Leslie R. Naftzger, dean.
Notre Dame, Ind.....	University of Notre Dame, Law Department..	William Hoynes, LL. D.
Valparaiso, Ind.....	Valparaiso University Law School.....	M. J. Bowman, LL. B.
Des Moines, Iowa.....	Drake University College of Law.....	Edward Baker Evans, LL. M.
Iowa City, Iowa.....	Iowa State University College of Law.....	Emlin McClain, LL. B.
Lawrence, Kans.....	University of Kansas Law School.....	James W. Green, A. M.
Topeka, Kans.....	Washburn College School of Law.....	William Reed Arthur, LL. B.
Lexington, Ky.....	State University of Kentucky College of Law..	William T. Lafferty, A. M.
Louisville, Ky.....	Jefferson School of Law.....	Judge Thomas R. Gordon.
Do.....	State University Central Law School.....	William C. Brown.
Do.....	University of Louisville, Law Department....	Charles B. Seymour, LL. B.
Baton Rouge, La.....	State University of Louisiana Law Department	Robert L. Tullis, LL. B.
New Orleans, La.....	Tulane University of Louisiana Law Department.	Charles P. Fenner, LL. B.
Bangor, Me.....	University of Maine College of Law.....	William E. Walz, Litt. D.
Baltimore, Md.....	Baltimore Law School.....	Alfred S. Niles, LL. B.
Do.....	University of Maryland Law School.....	Henry D. Harlan, LL. D.
Boston, Mass.....	Boston University Law School.....	Homer Albers, LL. B.
Do.....	Portia School of Law.....	Arthur W. MacLean, J. M.
Do.....	Suffolk School of Law.....	Gleason L. Archer, LL. B.
Do.....	Boston Young Men's Christian Association Evening Law School.	Frank Palmer Speare.
Cambridge, Mass.....	Harvard University Law School.....	Ezra Ripley Thayer, LL. B.
Ann Arbor, Mich.....	University of Michigan Department of Law...	Henry M. Bates, Ph. B.
Detroit, Mich.....	Detroit College of Law.....	Philip T. van Zile, LL. D.
Do.....	University of Detroit College of Law.....	Judge George S. Hosmer.
Minneapolis, Minn.....	University of Minnesota College of Law.....	William R. Vance, LL. B.
St. Paul, Minn.....	St. Paul College of Law.....	Judge George L. Bunn.
Jackson, Miss.....	Millsaps College of Law.....	A. H. Whitfield, LL. D.
University, Miss.....	University of Mississippi Department of Law.	Leonard J. Farley, LL. D.
Columbia, Mo.....	University of Missouri School of Law.....	Eldon R. James, LL. B.
Kansas City, Mo.....	Kansas City School of Law.....	Edward D. Ellison.
St. Louis, Mo.....	Benton College of Law.....	George L. Corlis, LL. B.
Do.....	City College of Law and Finance.....	Eustace C. Wheeler, LL. B.
Do.....	St. Louis University Institute of Law.....	O'Neill Ryan, LL. D.
Do.....	Washington University, St. Louis Law School.	William S. Curtis, LL. D.

XI.—PRESIDENTS AND DEANS OF PROFESSIONAL SCHOOLS—Continued.

2.—SCHOOLS OF LAW—Continued.

Location.	Name of institution.	President or dean.
Missoula, Mont.....	University of Montana College of Law.....	Albert N. Whitlock, LL. B.
Lincoln, Nebr.....	University of Nebraska College of Law.....	William Granger Hastings, A. B.
Omaha, Nebr.....	Creighton University, Creighton College of Law.....	Paul L. Martin, LL. B.
Do.....	University of Omaha, Omaha School of Law..	Judge Howard Kennedy.
Newark, N. J.....	New Jersey Law School.....	Richard D. Currier, LL. B.
Albany, N. Y.....	Union University, Albany Law School.....	J. Newton Fiero, LL. D.
Brooklyn, N. Y.....	St. Lawrence University, Brooklyn Law School.	William P. Richardson, LL. D.
Buffalo, N. Y.....	University of Buffalo, Buffalo Law School....	Carlos C. Alden, J. D.
Ithaca, N. Y.....	Cornell University College of Law.....	Frank Irvine, LL. B.
New York, N. Y.....	Columbia University School of Law.....	Harlan F. Stone, LL. B.
Do.....	Fordham University School of Law.....	John Whalen, LL. D.
Do.....	New York Law School.....	George Chase, LL. B.
Do.....	New York University Law School.....	Clarence D. Ashley, LL. D.
Syracuse, N. Y.....	Syracuse University College of Law.....	James B. Brooks, D. C. L.
Chapel Hill, N. C.....	University of North Carolina Law Department	Lucius Polk McGehee, A. B.
Durham, N. C.....	Trinity College Law School.....	Samuel Fox Mordecai, LL. D.
Raleigh, N. C.....	Shaw University School of Law.....	Winfield Hancock Lyon, jr., LL. B.
Wake Forest, N. C.....	Wake Forest College Law School.....	Needham Y. Gulley, M. A.
Bismarck, N. Dak.....	Bismarck Law College.....	E. H. Gunderson, LL. B.
University, N. Dak.....	University of North Dakota College of Law...	George T. Wells, LL. D.
Ada, Ohio.....	Ohio Northern University, Ada College of Law.	Jay P. Taggart, LL. B.
Cincinnati, Ohio.....	University of Cincinnati, Cincinnati Law School	William Perry Rogers, LL. D.
Do.....	Young Men's Christian Association Institute Night Law School.	Robert M. Ochiltree, LL. B.
Cleveland, Ohio.....	Baldwin-Wallace University, Cleveland Law School.	Willis Vickery, LL. D.
Do.....	Western Reserve University, Franklin T. Backus Law School.	Walter Thomas Dunmore, LL. B.
Columbus, Ohio.....	Ohio State University College of Law.....	John Jay Adams, LL. D.
Do.....	Young Men's Christian Association Institute Evening Law School.	Charles R. Frankham.
Toledo, Ohio.....	St. John's University College of Law.....	John P. Manton.
Do.....	Toledo University College of Law.....	James H. Southard, B. S.
Norman, Okla.....	University of Oklahoma College of Law.....	Julien Charles Monnett, LL. B.
Portland, Oreg.....	University of Oregon Department of Law.....	Calvin U. Gautenbein, LL. B.
Salem, Oreg.....	Willamette University College of Law.....	J. H. Van Winkle, LL. B.
Carlisle, Pa.....	Dickinson College, Dickinson School of Law...	William Trickett, LL. D.
Philadelphia, Pa.....	Temple University Law School.....	Francis Chapman, LL. D.
Do.....	University of Pennsylvania Department of Law.	William E. Mikell, B. S., professor of law.
Pittsburgh, Pa.....	Duquesne University of the Holy Ghost School of Law.	Judge Joseph M. Swearingen.
Do.....	University of Pittsburgh, Pittsburgh Law School.	John Douglas Shafer, LL. D.
Columbia, S. C.....	University of South Carolina Law School.....	John Peyre Thomas.
Vermilion, S. Dak.....	University of South Dakota College of Law....	Marshall McKusick, LL. B.
Chattanooga, Tenn.....	Chattanooga College of Law.....	Judge Charles R. Evans.
Knoxville, Tenn.....	University of Tennessee College of Law.....	Henry H. Ingersoll, LL. D.
Lebanon, Tenn.....	Cumberland University Law School.....	Nathan Green, LL. D.
Memphis, Tenn.....	University of West Tennessee College of Law..	M. V. Lynk, LL. B.
Nashville, Tenn.....	Vanderbilt University Law Department.....	Allen G. Hall, LL. D.
Do.....	Walden University Law Department.....	W. H. Hodgkins, LL. B.
Austin, Tex.....	University of Texas, Department of Law.....	John Charles Townes, LL. D.
Salt Lake City, Utah.....	University of Utah College of Law.....	Frank E. Holman, M. A.
Charlottesville, Va.....	University of Virginia Department of Law....	William Minor Lille, LL. D.
Lexington, Va.....	Washington and Lee University School of Law.	Martin Parks Burks, LL. D.
Richmond, Va.....	Richmond College School of Law.....	Walter Scott McNeill, Ph. D., LL. D.
Seattle, Wash.....	University of Washington Law School.....	John T. Condon, LL. M.
Morgantown, W. Va.....	West Virginia University College of Law.....	Henry C. Jones, LL. B.
Madison, Wis.....	University of Wisconsin Law School.....	Harry Sanger Richards, LL. D.
Milwaukee, Wis.....	Marquette University College of Law.....	Judge James G. Jenkins.

3.—SCHOOLS OF MEDICINE.

Birmingham, Ala.....	Birmingham Medical College.....	Lewis C. Morris.
Mobile, Ala.....	University of Alabama, Department of Medicine.	Eugene D. Bondurant, LL. D.
Little Rock, Ark.....	University of Arkansas, Medical Department.	Morgan Smith.
Loma Linda, Cal.....	College of Medical Evangelists.....	Alfred Q. Shryock, A. B.
Los Angeles, Cal.....	University of Southern California, College of Physicians and Surgeons.	Charles W. Bryson, A. B.
Oakland, Cal.....	Oakland College of Medicine and Surgery.....	Hayward G. Thomas.
San Francisco, Cal.....	College of Physicians and Surgeons.....	Ethan H. Smith.
Do.....	Leland Stanford Junior University, Department of Medicine.	Ray L. Wilbur.

XI.—PRESIDENTS AND DEANS OF PROFESSIONAL SCHOOLS—Continued.

3.—SCHOOLS OF MEDICINE—Continued.

Location.	Name of institution.	President or dean.
San Francisco and Los Angeles, Cal.	University of California, College of Medicine...	Herbert C. Moffitt and W. Jarvis Barlow.
Boulder and Denver, Colo.	University of Colorado, School of Medicine....	William P. Harlow.
New Haven, Conn.....	Yale University, Department of Medicine.....	George Blumer.
Washington, D. C.....	George Washington University, Department of Medicine.	William C. Borden.
Do.....	Georgetown University, School of Medicine...	George M. Kober, LL. D.
Do.....	Howard University, School of Medicine.....	Edward A. Balloch, A. M.
Atlanta, Ga.....	Atlanta Medical College.....	W. S. Elkin.
Augusta, Ga.....	Medical College of Georgia, University of Georgia.	William H. Doughty, jr., A. B.
Chicago, Ill.....	Bennett Medical College, Loyola University...	Maximilian J. Herzog, LL. D.
Do.....	Chicago College of Medicine and Surgery.....	Henry S. Tucker.
Do.....	Jenner Medical College.....	Frank C. Linden.
Do.....	Northwestern University, Medical School.....	Arthur R. Edwards, A. M.
Do.....	Rush Medical College, University of Chicago...	John Milton Dodson.
Do.....	University of Illinois, College of Medicine.....	William E. Quine, LL. D.
Indianapolis, Ind.....	Indiana University, School of Medicine.....	Charles P. Emerson, A. B.
Iowa City, Iowa.....	University of Iowa, College of Medicine.....	Lee W. Dean, M. S.
Rosedale and Lawrence, Kans.	University of Kansas, School of Medicine.....	Samuel J. Crumbine.
Louisville, Ky.....	University of Louisville, Medical College.....	Henry E. Tuley.
New Orleans, La.....	Tulane University of Louisiana, Medical Department.	Isadore Dyer.
Brunswick and Portland, Me.	Medical School of Maine.....	Addison S. Thayer, A. B.
Baltimore, Md.....	College of Physicians and Surgeons of Baltimore	William F. Lockwood.
Do.....	Johns Hopkins University, Medical Department.	J. Whitridge Williams, D. Sc.
Do.....	University of Maryland, School of Medicine...	R. Dorsey Coale.
Boston, Mass.....	Harvard University, Medical School.....	Edward H. Bradford, dean.
Do.....	Tufts College, Medical School.....	Charles F. Painter.
Ann Arbor, Mich.....	University of Michigan, Department of Medicine and Surgery.	Victor C. Vaughan, LL. D.
Detroit, Mich.....	Detroit College of Medicine.....	Theodore A. McGraw.
Minneapolis, Minn.....	University of Minnesota, College of Medicine and Surgery.	E. P. Lyon, Ph. D.
University, Miss.....	University of Mississippi, Medical Department.	Walter S. Leathers.
Columbia, Mo.....	University of Missouri, School of Medicine.....	Clarence M. Jackson, M. S.
St. Louis, Mo.....	American Medical College.....	James Moores Ball.
Do.....	St. Louis University, School of Medicine.....	Hanau W. Loeb, A. M.
Do.....	Washington University, Medical School.....	Eugene L. Opie.
Lincoln and Omaha, Nebr.	University of Nebraska, College of Medicine...	Willson O. Bridges.
Omaha, Nebr.....	John A. Creighton Medical College.....	A. L. Muirhead.
Hanover, N. H.....	Dartmouth Medical School.....	John M. Gile, A. M.
Albany, N. Y.....	Albany Medical College, Union University...	Samuel B. Ward, Ph. D.
Brooklyn, N. Y.....	Long Island College Hospital.....	Joseph H. Raymond.
Buffalo, N. Y.....	University of Buffalo, Medical Department...	Herbert U. Williams.
New York, N. Y.....	Columbia University, College of Physicians and Surgeons.	Samuel W. Lambert, A. M.
New York and Ithaca, N. Y.	Cornell University, Medical College.....	William M. Polk, LL. D.
New York, N. Y.....	Fordham University, School of Medicine.....	William P. Healy.
Do.....	University and Bellevue Hospital Medical College.	William H. Park, LL. D.
Syracuse, N. Y.....	Syracuse University, College of Medicine.....	John L. Heffron, Sc. D.
Chapel Hill, N. C.....	University of North Carolina, School of Medicine.	Isaac H. Manning.
Charlotte, N. C.....	North Carolina Medical College.....	W. O. Nisbet.
Raleigh, N. C.....	Shaw University, Leonard Medical School....	George H. Stoddard, A. M.
Wake Forest, N. C.....	Wake Forest College, School of Medicine.....	William L. Poteat, LL. D.
University, N. Dak.....	University of North Dakota, College of Medicine.	Harley E. French, M. S.
Cincinnati, Ohio.....	Ohio-Miami Medical College, University of Cincinnati.	Christian R. Holmes.
Cleveland, Ohio.....	Western Reserve University, Medical Department.	Carl A. Hamann.
Columbus, Ohio.....	Ohio State University, College of Medicine...	William J. Means.
Norman, Okla.....	University of Oklahoma, School of Medicine..	Curtis R. Day.
Portland, Oreg.....	University of Oregon, Medical Department....	Kenneth A. J. Mackenzie, L. R. C. P., L. R. C. S.
Philadelphia, Pa.....	Jefferson Medical College.....	Ross V. Patterson, subdean.
Do.....	Medico-Chirurgical College.....	Seneca Egbert, A. M.
Do.....	Temple University, Department of Medicine..	Frank C. Hammond.
Do.....	University of Pennsylvania, Department of Medicine.	William Pepper.
Do.....	Woman's Medical College of Pennsylvania....	Clara Marshall.

XI.—PRESIDENTS AND DEANS OF PROFESSIONAL SCHOOLS—Continued.

3.—SCHOOLS OF MEDICINE—Continued.

Location.	Name of institution.	President or dean.
Pittsburgh, Pa.....	University of Pittsburgh, Medical Department.	Thomas S. Arbuthnot.
Charleston, S. C.....	Medical College of the State of South Carolina.	Robert Wilson, Jr.
Vermilion, S. Dak.....	University of South Dakota, College of Medicine.	Christian P. Lommen.
Memphis, Tenn.....	University of Tennessee, College of Medicine..	Herbert T. Brooks.
Do.....	University of West Tennessee, Medical Department.	M. V. Lynk, M. S.
Nashville, Tenn.....	Vanderbilt University, Medical Department..	Lucius F. Burch, acting dean.
Do.....	Walden University, Meharry Medical College..	G. W. Hubbard.
Dallas, Tex.....	Baylor University, Medical Department.....	Edward H. Cary.
Do.....	Southern Methodist University, Medical Department.	John O. McReynolds.
Fort Worth, Tex.....	Fort Worth School of Medicine, Texas Christian University.	Ira C. Chase, A. M.
Galveston, Tex.....	University of Texas, School of Medicine.....	William S. Carter.
Salt Lake City, Utah...	University of Utah, School of Medicine.....	Perry B. Snow, B. A.
Burlington, Vt.....	University of Vermont, College of Medicine....	Henry C. Tinkham, M. Sc.
Charlottesville, Va.....	University of Virginia, Medical Department...	Richard H. Whitehead.
Richmond, Va.....	Medical College of Virginia.....	Stuart McGuire.
Morgantown, W. Va....	West Virginia University, School of Medicine..	John N. Simpson.
Madison, Wis.....	University of Wisconsin, Medical School.....	Charles R. Bardeen.
Milwaukee, Wis.....	Marquette University, Medical Department...	Louis F. Jermain.

3.—SCHOOLS OF MEDICINE (HOMEOPATHIC).

San Francisco, Cal.....	Hahnemann Medical College of the Pacific.....	James W. Ward.
Chicago, Ill.....	Hahnemann Medical College.....	W. Henry Wilson.
Iowa City, Iowa.....	University of Iowa, Homeopathic Medical Department.	George Royal.
Boston, Mass.....	Boston University, School of Medicine.....	John P. Sutherland.
Ann Arbor, Mich.....	University of Michigan, Homeopathic Medical College.	Wilbert B. Hinsdale, A. M.
Kansas City, Mo.....	Kansas City University, Hahnemann Medical College.	Moses T. Runnells, A. M.
New York, N. Y.....	New York Homeopathic Medical College and Flower Hospital.	Royal S. Copeland, A. M.
Do.....	New York Medical College and Hospital for Women.	Emily C. Charles.
Cleveland, Ohio.....	Cleveland-Pulte Medical College.....	George H. Quay.
Philadelphia, Pa.....	Hahnemann Medical College.....	William B. van Lennep, A. M.

3.—SCHOOLS OF MEDICINE (ECLECTIC).

Los Angeles, Cal.....	California Eclectic Medical College.....	J. A. Munk.
Atlanta, Ga.....	Georgia College of Eclectic Medicine and Surgery.	John W. White, proctor.
Lincoln, Nebr.....	Cotner Medical College.....	F. L. Wilweth.
Cincinnati, Ohio.....	Eclectic Medical College.....	Roller L. Thomas.

4.—SCHOOLS OF DENTISTRY.

Birmingham, Ala.....	Birmingham Dental College.....	Charles A. Merrill.
Los Angeles, Cal.....	University of Southern California, College of Dentistry.	Lewis E. Ford.
San Francisco, Cal.....	College of Physicians and Surgeons, Department of Dentistry.	Thomas Morflew.
Do.....	University of California, College of Dentistry..	Guy S. Millberry.
Denver, Colo.....	Colorado College of Dental Surgery, University of Denver.	W. T. Chambers.
Washington, D. C.....	George Washington University, Department of Dentistry.	J. Roland Walton.
Do.....	Georgetown University, Dental Department..	Shirley W. Bowles.
Do.....	Howard University, Dental College.....	Edward A. Balloch, A. M.
Atlanta, Ga.....	Atlanta Dental College.....	William Crenshaw.
Do.....	Southern Dental College.....	Sheppard W. Foster.
Chicago, Ill.....	Chicago College of Dental Surgery, Valparaiso University.	Truman W. Brophy, I.L. D.
Do.....	Northwestern University, Dental School.....	G. V. Black, Sc. D., I.L. D.
Do.....	University of Illinois, College of Dentistry....	Frederick B. Moorehead, A. B.
Indianapolis, Ind.....	Indiana Dental College, University of Indianapolis.	George Edwin Hunt.
Valparaiso, Ind.....	Valparaiso University, College of Dentistry....	Truman W. Brophy.

XI.—PRESIDENTS AND DEANS OF PROFESSIONAL SCHOOLS—Continued.

4.—SCHOOLS OF DENTISTRY—Continued.

Location.	Name of institution.	President or dean.
Iowa City, Iowa.....	State University of Iowa, College of Dentistry.	Frank T. Breene.
Louisville, Ky.....	Louisville College of Dentistry, Central University of Kentucky.	William E. Grant.
New Orleans, La.....	Loyola School of Dentistry, Loyola University.	C. Victor Vignes.
Do.....	School of Dentistry, Tulane University of Louisiana.	Wallace Good.
Baltimore, Md.....	Baltimore College of Dental Surgery.....	W. G. Foster.
Do.....	Baltimore Medical College, Dental Department.	J. W. Smith.
Do.....	University of Maryland, Dental Department..	Timothy O. Heatwole.
Boston, Mass.....	Harvard University, Dental School.....	Eugene Hanes Smith.
Do.....	Tufts College, Dental School.....	Charles F. Painter.
Ann Arbor, Mich.....	University of Michigan, College of Dental Surgery.	Nelville S. Hoff.
Minneapolis, Minn.....	University of Minnesota, College of Dentistry.	Alfred Owre, C. M.
Kansas City, Mo.....	Kansas City Dental College.....	John Deans Patterson.
Do.....	Western Dental College.....	H. B. McMillen, secretary.
St. Louis, Mo.....	Barnes Dental College of National University of Arts and Sciences.	George H. Owen.
Do.....	St. Louis Dental College, St. Louis University.	James P. Harper.
Do.....	Washington University, Dental School.....	John H. Kennerly.
Lincoln, Nebr.....	Lincoln Dental College, University of Nebraska.	Wallace Clyde Davis.
Omaha, Nebr.....	Creighton University, College of Dentistry....	A. Hugh Hipple.
Buffalo, N. Y.....	University of Buffalo, Dental Department....	George B. Snow.
New York, N. Y.....	College of Dental and Oral Surgery of New York.	William Carr.
Do.....	New York College of Dentistry.....	Faneuil D. Weisse.
Cincinnati, Ohio.....	Cincinnati College of Dental Surgery, Ohio University.	C. S. Junkerman, A. M.
Do.....	Ohio College of Dental Surgery, University of Cincinnati.	H. T. Smith.
Cleveland, Ohio.....	Western Reserve University, Dental School...	Edward E. Belford.
Columbus, Ohio.....	Ohio State University, College of Dentistry....	Harry M. Semans.
Portland, Oreg.....	North Pacific College of Dentistry.....	Herbert C. Miller.
Philadelphia, Pa.....	Medico-Chirurgical College, Department of Dentistry.	I. N. Broomell.
Do.....	Philadelphia Dental College, Temple University.	Simeon H. Guilford, A. M., Ph. D.
Do.....	University of Pennsylvania, School of Dentistry.	Edward C. Kirk, Sc. D.
Pittsburgh, Pa.....	University of Pittsburgh, School of Dentistry.	H. Edmund Friesell.
Memphis, Tenn.....	College of Dentistry, University of Tennessee..	Joseph A. Gardner.
Do.....	University of West Tennessee, Dental School..	M. V. Lynk.
Nashville, Tenn.....	Vanderbilt University, Dental Department....	Henry W. Morgan.
Do.....	Walden University, Meharry Dental College..	G. W. Hubbard.
Dallas, Tex.....	State Dental College.....	T. G. Bradford.
Houston, Tex.....	Texas Dental College.....	O. F. Gambati.
Richmond, Va.....	Virginia School of Dentistry, Medical College of Virginia.	Richard L. Simpson, A. M., chairman of faculty.
Milwaukee, Wis.....	Marquette University, Dental Department....	Henry L. Banzhaf, B. S.

5.—SCHOOLS OF PHARMACY.

Auburn, Ala.....	Alabama Polytechnic Institute, Pharmacy Department.	L. S. Blake, M. S.
Birmingham, Ala.....	Birmingham Medical College, Department of Pharmacy.	A. R. Bliss, jr.
Mobile, Ala.....	University of Alabama, Department of Pharmacy.	E. D. Bondurant.
Los Angeles, Cal.....	University of Southern California, College of Pharmacy.	Laird J. Stabler, M. S.
San Francisco, Cal.....	California College of Pharmacy, University of California.	Franklin T. Green.
Do.....	College of Physicians and Surgeons, Department of Pharmacy.	John Henry Flint.
Boulder, Colo.....	University of Colorado, School of Pharmacy...	Homer C. Washburn.
Washington, D. C.....	George Washington University, National College of Pharmacy.	H. E. Kalusowski.
Do.....	Howard University, College of Pharmacy.....	Edward A. Balloch, A. M.
Athens, Ga.....	University of Georgia, School of Pharmacy....	Robert C. Wilson, head of department.
Atlanta, Ga.....	Atlanta College of Pharmacy.....	George F. Payne.
Do.....	Southern College of Pharmacy.....	R. C. Hood.
Macon, Ga.....	Mercer University, School of Pharmacy.....	C. A. Struby.
Chicago, Ill.....	Central States College of Pharmacy, Loyola University.	George L. Secord.
Do.....	Northwestern University, School of Pharmacy.	John Harper Long, Sc. D.
Do.....	University of Illinois, School of Pharmacy....	William B. Day, acting dean.

XI.—PRESIDENTS AND DEANS OF PROFESSIONAL SCHOOLS—Continued.

5.—SCHOOLS OF PHARMACY—Continued.

Location.	Name of institution.	President or dean.
Angola, Ind.....	Tri-state College of Pharmacy.....	C. C. Sherrard.
Indianapolis, Ind.....	Indianapolis College of Pharmacy.....	Ferd. A. Mueller.
Notre Dame, Ind.....	University of Notre Dame, School of Pharmacy	Robert Lee Green.
Valparaiso, Ind.....	Valparaiso University, Department of Pharmacy.	G. D. Timmons, B. S.
Iowa City, Iowa.....	State University of Iowa, College of Pharmacy.	Wilber J. Teeters, M. S.
Lawrence, Kans.....	University of Kansas, School of Pharmacy....	Lucius E. Sayre, M. S.
Louisville, Ky.....	Louisville College of Pharmacy.....	Gordon L. Curry.
New Orleans, La.....	New Orleans College of Pharmacy.....	Phillip Asher.
Do.....	New Orleans University, School of Pharmacy..	R. T. Fuller.
Do.....	Tulane University of Louisiana, School of Pharmacy.	Isadore Dyer.
Orono, Me.....	University of Maine, College of Pharmacy.....	Wilbur Fisk Jackman.
Baltimore, Md.....	Maryland College of Pharmacy, University of Maryland.	Charles Caspari, jr.
Boston, Mass.....	Massachusetts College of Pharmacy.....	Theodore J. Bradley.
Ann Arbor, Mich.....	University of Michigan, School of Pharmacy..	J. O. Schlotterbeck.
Big Rapids, Mich.....	Ferris Institute, Pharmacy Department.....	W. N. Ferris.
Minneapolis, Minn.....	University of Minnesota, College of Pharmacy..	Frederick J. Wulling, LL. M.
University, Miss.....	University of Mississippi, School of Pharmacy.	Henry M. Faser.
Kansas City, Mo.....	Kansas City College of Pharmacy and Natural Sciences.	David V. Whitney.
St. Louis, Mo.....	School of Pharmacy of National University of Arts and Sciences.	George M. Heath, B. S.
Fremont, Nebr.....	Fremont College, School of Pharmacy.....	J. C. Jordan.
Lincoln, Nebr.....	University of Nebraska, School of Pharmacy...	Rufus A. Lyman.
Omaha, Nebr.....	Creighton University, Department of Pharmacy.	I. Curtis Arledge.
Jersey City, N. J.....	College of Jersey City, Department of Pharmacy.	Joseph Koppel.
Newark, N. J.....	New Jersey College of Pharmacy.....	Philemon E. Hommell.
Albany, N. Y.....	Albany College of Pharmacy, Union University	Willis G. Tucker.
Brooklyn, N. Y.....	Brooklyn College of Pharmacy.....	William C. Anderson.
Buffalo, N. Y.....	Buffalo College of Pharmacy, University of Buffalo.	Willis G. Gregory.
New York, N. Y.....	College of Pharmacy of the City of New York, Columbia University.	Henry H. Rusby.
Do.....	Fordham University, College of Pharmacy...	William P. Healy.
Chapel Hill, N. C.....	University of North Carolina, Department of Pharmacy.	Edward V. Howell, A. B.
Raleigh, N. C.....	Leonard School of Pharmacy, Shaw University	George H. Stoddard, A. M.
Agricultural College, N. Dak.	North Dakota Agricultural College, School of Pharmacy.	E. F. Ladd, B. S.
Ada, Ohio.....	Ohio Northern University, School of Pharmacy	David C. Mohler.
Cincinnati, Ohio.....	Cincinnati College of Pharmacy.....	Julius H. Eichberg.
Cleveland, Ohio.....	Cleveland School of Pharmacy, Western Reserve University.	William C. Alpers, Sc. D.
Columbus, Ohio.....	Ohio State University, College of Pharmacy...	George B. Kauffman.
Do.....	Starling Ohio Medical College, Department of Pharmacy.	H. R. Burbacher.
Toledo, Ohio.....	Toledo University, College of Pharmacy.....	William McKendree Reed.
Norman, Okla.....	State University of Oklahoma, School of Pharmacy.	Charles H. Stocking.
Corvallis, Oreg.....	Oregon Agricultural College, Department of Pharmacy.	Richard H. Dearborn, M. E.
Portland, Oreg.....	North Pacific College of Pharmacy.....	Herbert C. Miller.
Philadelphia, Pa.....	Medico-Chirurgical College, Department of Pharmacy.	Julius W. Sturmer.
Do.....	Philadelphia College of Pharmacy.....	Joseph P. Remington.
Do.....	Temple University, Department of Pharmacy.	John R. Minehart.
Pittsburgh, Pa.....	Pittsburgh College of Pharmacy, University of Pittsburgh.	Julius A. Koch.
Providence, R. I.....	Rhode Island College of Pharmacy and Allied Sciences.	Edwin E. Calder.
Charleston, S. C.....	Medical College of State of South Carolina, Department of Pharmacy.	Robert Wilson, jr.
Brookings, S. Dak.....	South Dakota State College of Agriculture and Mechanic Arts, Department of Pharmacy.	B. T. Whitehead, professor.
Memphis, Tenn.....	School of Pharmacy of University of Tennessee.	Herbert T. Brooks.
Do.....	University of West Tennessee, College of Pharmacy.	M. B. Lynk.
Nashville, Tenn.....	Vanderbilt University, Department of Pharmacy.	J. T. McGill.
Do.....	Walden University, Meharry College of Pharmacy.	G. W. Hubbard.
Dallas, Tex.....	Baylor University, College of Pharmacy.....	E. G. Eberle.
Do.....	Southern Methodist University, Pharmaceutical Department.	John O. McReynolds.
Fort Worth, Tex.....	Texas Christian University, School of Pharmacy.	Ira C. Chase, A. M.

XI.—PRESIDENTS AND DEANS OF PROFESSIONAL SCHOOLS—Continued.

5.—SCHOOLS OF PHARMACY—Continued.

Location.	Name of institution.	President or dean.
Galveston, Tex.....	University of Texas, School of Pharmacy.....	William S. Carter.
Richmond, Va.....	Virginia School of Pharmacy, Medical College of Virginia.	A. Bolenbaugh, B. S., chairman of faculty.
Pullman, Wash.....	State College of Washington, School of Pharmacy.	George H. Watt.
Seattle, Wash.....	University of Washington, College of Pharmacy.	Charles W. Johnson, B. S.
Madison, Wis.....	University of Wisconsin, School of Pharmacy..	Edward Kremers.
Milwaukee, Wis.....	Marquette University, Pharmacy Department.	R. E. W. Sommer.

6.—SCHOOLS OF VETERINARY MEDICINE.

Auburn, Ala.....	Alabama Polytechnic Institute, College of Veterinary Medicine.	C. A. Carey.
San Francisco, Cal.....	San Francisco Veterinary College.....	Charles Keane.
Fort Collins, Colo.....	Colorado Agricultural College, Division of Veterinary Science.	George H. Glover.
Washington, D. C.....	George Washington University, College of Veterinary Medicine.	David E. Buckingham.
Do.....	United States College of Veterinary Surgeons..	Hurlbert Young.
Chicago, Ill.....	Chicago Veterinary College.....	Joseph Hughes.
Do.....	McKillop Veterinary College.....	Charles Frazier, dean.
Indianapolis, Ind.....	Indiana Veterinary College.....	George H. Roberts.
Terre Haute, Ind.....	Terre Haute Veterinary College.....	C. I. Fleming, dean.
Ames, Iowa.....	Iowa State College, Division of Veterinary Medicine.	Charles H. Stange.
Manhattan, Kans.....	Kansas State Agricultural College, Veterinary Department.	F. S. Schoenleber, professor.
East Lansing, Mich.....	Michigan Agricultural College, Veterinary Division.	Richard P. Lyman.
Grand Rapids, Mich...	Grand Rapids Veterinary College.....	H. L. Schuh.
Kansas City, Mo.....	Kansas City Veterinary College.....	S. Stewart.
St. Joseph, Mo.....	St. Joseph Veterinary College.....	F. W. Caldwell.
Ithaca, N. Y.....	New York State Veterinary College at Cornell University.	Veranus A. Moore.
New York, N. Y.....	New York American Veterinary College, New York University.	William J. Coates.
Agricultural College, N. Dak.	North Dakota Agricultural College, School of Veterinary Medicine and Surgery.	L. van Es.
Cincinnati, Ohio.....	Cincinnati Veterinary College.....	Louis P. Cook.
Columbus, Ohio.....	Ohio State University College of Veterinary Medicine.	David S. White.
Philadelphia, Pa.....	University of Pennsylvania, School of Veterinary Medicine.	Louis A. Klein.
Pullman, Wash.....	Washington State College, Veterinary Department.	Sofus B. Nelson.

XII.—PRINCIPALS OF NORMAL AND KINDERGARTEN TRAINING SCHOOLS.

1.—PUBLIC NORMAL SCHOOLS.¹

Location.	Name of institution.	For men, for women, or coeducational.	Principal.
ALABAMA.			
Daphne.....	State Normal School.....	Coed....	B. B. Baker.
Florence.....	do.....	Coed....	Henry J. Willingham.
Jacksonville.....	do.....	Coed....	C. W. Dautette.
Livingston.....	do.....	Women..	George W. Brock.
Montgomery.....	State Colored Normal School.....	Coed....	Wm. B. Patterson.
Normal.....	Agricultural and Mechanical College for Negroes.	Coed....	Walter S. Buchanan.
Troy.....	State Normal School.....	Coed....	E. M. Shackelford.
Tuskegee.....	Tuskegee Normal and Industrial Institute (colored).	Coed....	Booker T. Washington.
ARIZONA.			
Flagstaff.....	Northern Arizona Normal School.....	Coed....	Rudolph H. H. Blome.
Tempe.....	Tempe Normal School of Arizona.....	Coed....	A. J. Matthews.

¹Institutions starred (*) have kindergarten training departments.

XII.—PRINCIPALS OF NORMAL AND KINDERGARTEN TRAINING SCHOOLS—Contd.

1.—PUBLIC NORMAL SCHOOLS—Continued.

Location.	Name of institution.	For men, for wo- men, or coeduca- tional.	Principal.
ARKANSAS.			
Conway.....	Arkansas State Normal School.....	Coed....	John J. Doyne.
Pine Bluff.....	Branch Normal College (colored).....	Coed....	F. T. Venegar.
CALIFORNIA.			
Arcata.....	Humboldt State Normal School.....	Coed....	N. B. Van Matré.
Chico.....	State Normal School.....	Coed....	Allison Ware.
Fresno.....	do.....	Coed....	C. L. McLane.
*Los Angeles.....	do.....	Coed....	Jesse F. Millspaugh.
San Diego.....	do.....	Coed....	Edward L. Hardy.
San Francisco.....	do.....	Coed....	Frederic Burk.
*San Jose.....	do.....	Coed....	Morris Elmer Dailey.
Santa Barbara.....	State Normal School of Manual Arts and Home Economics.	Coed....	Ednah A. Rich.
COLORADO.			
*Gunnison.....	Colorado State Normal School.....	Coed....	James H. Kelley.
CONNECTICUT.			
Bridgeport.....	Bridgeport City Normal School.....	Coed....	Besse E. Howes.
Danbury.....	State Normal Training School.....	Coed....	John R. Perkins.
*New Britain.....	do.....	Coed....	Marcus White.
New Haven.....	do.....	Coed....	Arthur B. Morrill.
Willimantic.....	do.....	Coed....	Henry T. Burr.
DISTRICT OF COLUMBIA.			
*Washington.....	J. Ormond Wilson Normal School.....	Coed....	Anne M. Goding.
*Do.....	Washington Normal School (colored).....	Coed....	Lucy E. Moten.
GEORGIA.			
Athens.....	State Normal School.....	Coed....	Jere M. Pound.
Milledgeville.....	Georgia Normal and Industrial College.....	Women.	M. M. Parks.
Valdosta.....	Southern Georgia State Normal College.....	Women.	R. H. Powell.
IDAHO.			
Albion.....	State Normal School.....	Coed....	George A. Axline.
Lewiston.....	do.....	Coed....	Geo. H. Black.
ILLINOIS.			
Carbondale.....	Southern Illinois State Normal University.....	Coed....	D. B. Parkinson.
Charleston.....	Eastern Illinois State Normal School.....	Coed....	Livingston C. Lord.
*Chicago.....	Chicago Normal School.....	Coed....	Wm. B. Owen.
De Kalb.....	Northern Illinois State Normal School.....	Coed....	John W. Cook.
Macomb.....	Western Illinois State Normal School.....	Coed....	Walter P. Morgan.
*Normal.....	Illinois State Normal University.....	Coed....	David Felmley.
INDIANA.			
Fort Wayne.....	Normal Training School.....	Coed....	Flora Wilber.
Indianapolis.....	Indianapolis Normal School.....	Coed....	Marion Lee Webster.
Terre Haute.....	Indiana State Normal School.....	Coed....	William W. Parsons.
IOWA.			
Shenandoah.....	Western Normal College.....	Coed....	A. H. Speer.
KANSAS.			
*Emporia.....	State Normal School.....	Coed....	Thomas W. Butcher.
Hays.....	Fort Hays Kansas State Normal School...	Coed....	W. A. Lewis.
*Pittsburg.....	State Manual Training Normal School....	Coed....	W. A. Brandenburg.
KENTUCKY.			
Bowling Green.....	Western Kentucky State Normal School...	Coed....	H. H. Cherry.
Frankfort.....	State Normal and Industrial Institute for Colored Persons.	Coed....	Green P. Russell.
*Louisville.....	Louisville Normal School.....	Coed....	Elizabeth Breckinridge.
Richmond.....	Eastern Kentucky State Normal School...	Coed....	John G. Crabbe.

XII.—PRINCIPALS OF NORMAL AND KINDERGARTEN TRAINING SCHOOLS—Contd.

1.—PUBLIC NORMAL SCHOOLS—Continued.

Location.	Name of institution.	For men, for wo- men, or coeduca- tional.	Principal.
LOUISIANA.			
Natchitoches.....	Louisiana State Normal School.....	Coed....	Victor L. Roy.
*New Orleans.....	New Orleans Normal School.....	Coed....	Margaret C. Hanson.
MAINE.			
Castine.....	Eastern State Normal School.....	Coed....	Albert F. Richardson.
Farmington.....	Farmington State Normal School.....	Coed....	Wilbert G. Mallett.
Fort Kent.....	Madawaska Training School.....	Coed....	Mary P. Nowland.
Gorham.....	Western State Normal School.....	Coed....	Walter E. Russell.
Lewiston.....	Lewiston Normal Training School.....	Coed....	Adelaide V. Finch.
Machias.....	Washington State Normal School.....	Coed....	William L. Powers.
Presque Isle.....	Aroostook State Normal School.....	Coed....	San Lorenzo Merriman.
MARYLAND.			
Baltimore.....	Baltimore Teachers Training School.....	Coed....	Frank A. Manny.
Do.....	Colored Training School.....	Coed....	Joseph H. Lockerman.
Do.....	Maryland State Normal School.....	Coed....	Sarah E. Richmond.
Bowie.....	Maryland State Normal and Industrial School (colored).	Coed....	D. S. S. Goodloe.
Frostburg.....	Maryland State Normal School.....	Coed....	Edward F. Webb.
MASSACHUSETTS.			
*Boston.....	Boston Normal School.....	Coed....	Wallace C. Boyden.
Do.....	Massachusetts Normal Art School.....	Coed....	James F. Hopkins.
*Bridgewater.....	State Normal School.....	Coed....	Arthur C. Boyden.
Fall River.....	Normal Training School.....	Coed....	Anna W. Braley.
*Fitchburg.....	State Normal School.....	Coed....	John G. Thompson.
Framingham.....	State Normal School.....	Coed....	Henry Whittemore.
Hyannis.....	do.....	Coed....	Wm. A. Baldwin.
Lowell.....	do.....	Coed....	Cyrus A. Durgin.
North Adams.....	do.....	Coed....	Frank F. Murdock.
Salem.....	do.....	Coed....	Joseph Asbury Pitman.
Westfield.....	do.....	Coed....	Clarence A. Brodeur.
*Worcester.....	do.....	Coed....	Wm. B. Aspinwall.
MICHIGAN.			
*Detroit.....	Washington Normal Training School.....	Coed....	John F. Thomas.
*Kalamazoo.....	Western State Normal School.....	Coed....	Dwight B. Waldo.
*Marquette.....	Northern State Normal School.....	Coed....	James H. Kaye.
*Mount Pleasant.....	Central State Normal School.....	Coed....	Charles T. Grawn.
*Ypsilanti.....	Michigan State Normal College.....	Coed....	Charles McKenny.
MINNESOTA.			
*Duluth.....	State Normal School.....	Coed....	E. W. Bohannon.
*Mankato.....	do.....	Coed....	Chas. H. Cooper.
*Moorhead.....	do.....	Coed....	Frank A. Weld.
St. Cloud.....	do.....	Coed....	W. A. Shoemaker.
*St. Paul.....	St. Paul Normal School.....	Coed....	L. L. Everly.
*Winona.....	State Normal School.....	Coed....	Guy E. Maxwell.
MISSISSIPPI.			
Hattiesburg.....	Mississippi Normal College.....	Coed....	Joe Cook.
MISSOURI.			
Cape Girardeau.....	State Normal School.....	Coed....	W. S. Dearmont.
Jefferson City.....	Lincoln Institute (colored).....	Coed....	Benjamin F. Allen.
Kirksville.....	State Normal School.....	Coed....	John R. Kirk.
*Maryville.....	do.....	Coed....	H. K. Taylor.
*St. Louis.....	Harris Teachers College.....	Women.	John W. Withers.
Springfield.....	State Normal School.....	Coed....	W. T. Carrington.
*Warrensburg.....	do.....	Coed....	W. J. Hawkins.
MONTANA.			
Dillon.....	Montana State Normal School.....	Coed....	J. E. Monroe.

XII.—PRINCIPALS OF NORMAL AND KINDERGARTEN TRAINING SCHOOLS—Contd.

1.—PUBLIC NORMAL SCHOOLS—Continued.

Location.	Name of institution.	For men, for wo- men, or coeduca- tional.	Principal.
NEBRASKA.			
Chadron.....	State Normal School.....	Coed....	Joseph Sparks.
*Kearney.....	do.....	Coed....	George S. Dick.
*Peru.....	do.....	Coed....	D. W. Hayes.
*Wayne.....	do.....	Coed....	U. S. Conn.
NEW HAMPSHIRE.			
Keene.....	State Normal School.....	Coed....	Wallace E. Mason.
Plymouth.....	do.....	Coed....	Ernest L. Silver.
NEW JERSEY.			
Elizabeth.....	Normal and Training School.....	Coed....	Julius M. Winslow.
Jersey City.....	Teachers' Training School.....	Coed....	Joseph H. Brensinger.
*Montclair.....	New Jersey State Normal School.....	Coed....	Chas. S. Chapin.
Newark.....	do.....	Coed....	W. S. Willis.
Paterson.....	Paterson Normal Training School.....	Coed....	Frank W. Smith.
*Trenton.....	New Jersey State Normal School.....	Coed....	James M. Green.
NEW MEXICO.			
El Rito.....	Spanish-American Normal School.....	Coed....	George J. Martin.
East Las Vegas.....	New Mexico Normal University.....	Coed....	Frank H. H. Roberts.
Silver City.....	New Mexico Normal School.....	Coed....	C. M. Light.
NEW YORK.			
*Albany.....	Teachers' Training School.....	Coed....	Thomas S. O'Brien.
Brockport.....	State Normal and Training School.....	Coed....	Alfred C. Thompson.
*Brooklyn.....	Training School for Teachers.....	Coed....	Emma L. Johnston.
*Buffalo.....	State Normal School.....	Coed....	Daniel Upton.
Cohoes.....	Cohoes Training School.....	Coed....	Harriet L. Knapp.
*Cortland.....	State Normal and Training School.....	Coed....	Harry De W. De Groat.
*Fredonia.....	do.....	Coed....	Myron T. Dana.
*Geneseo.....	Geneseo State Normal School.....	Coed....	James V. Sturges.
*New Paltz.....	State Normal School.....	Coed....	John C. Bliss.
*New York.....	New York Training School for Teachers.....	Coed....	Welland Hendrick, act- ing.
*Oneonta.....	State Normal School.....	Coed....	Percy I. Bugbee.
*Oswego.....	Oswego State Normal and Training School.....	Coed....	
Plattsburg.....	State Normal School.....	Coed....	Geo. K. Hawkins.
Potsdam.....	State Normal and Training School.....	Coed....	Jeremiah M. Thompson.
*Rochester.....	Rochester Training School.....	Coed....	Edith A. Scott.
Schenectady.....	Teachers' Training School.....	Coed....	Granville B. Jeffers.
Syracuse.....	Syracuse Training School for Teachers.....	Coed....	J. Edward Banta.
Yonkers.....	Yonkers Training School for Teachers.....	Coed....	Eleanor M. Taylor.
NORTH CAROLINA.			
Cullowhee.....	Cullowhee Normal and Industrial School..	Coed....	A. C. Reynolds.
Elizabeth City.....	State Colored Normal School.....	Coed....	P. W. Moore.
Fayetteville.....	do.....	Coed....	E. E. Smith.
Greenville.....	East Carolina Teachers' Training School...	Coed....	Robt. H. Wright.
Greensboro.....	State Normal and Industrial College.....	Women.	Julius I. Foust.
Pembroke.....	Croatan Normal College (Indian).....	Coed....	O. V. Hamrick.
Winston.....	Slater Industrial and State Normal School (colored).	Coed....	S. G. Atkins.
NORTH DAKOTA.			
Ellendale.....	North Dakota State Normal and Industrial School.	Coed....	Ryland M. Black.
Mayville.....	State Normal School.....	Coed....	Thos. A. Hillyer.
Minot.....	do.....	Coed....	A. G. Crane.
*Valley City.....	do.....	Coed....	Geo. A. McFarland.
OHIO.			
Akron.....	Perkins Normal School.....	Coed....	Leo R. Knight.
Bowling Green.....	State Normal College.....	Coed....	Homer B. Williams.
Cleveland.....	Cleveland Normal Training School.....	Coed....	James W. McLane.
Columbus.....	Columbus Normal School.....	Coed....	Margaret W. Sutherland.
Dayton.....	Dayton Normal School.....	Coed....	Grace A. Greene.
Kent.....	State Normal School.....	Coed....	John E. McGilvrey.

XII.—PRINCIPALS OF NORMAL AND KINDERGARTEN TRAINING SCHOOLS—Contd.

1.—PUBLIC NORMAL SCHOOLS—Continued.

Location.	Name of institution.	For men, for wo- men, or coeduca- tional.	Principal.
OKLAHOMA.			
Ada.....	East Central State Normal School.....	Coed....	Chas. W. Briles.
Alva.....	Northwestern State Normal School.....	Coed....	Grant B. Grumbine.
Durant.....	Southeastern State Normal School.....	Coed....	W. C. Canterbury.
*Edmond.....	Central State Normal School.....	Coed....	Charles Evans.
Langston.....	Colored Agricultural and Normal Uni- versity.	Coed....	Inman E. Page.
Tahlequah.....	Northeastern State Normal School.....	Coed....	G. W. Gable.
Weatherford.....	Southwestern State Normal School.....	Coed....	U. J. Griffith.
OREGON.			
Monmouth.....	State Normal School.....	Coed....	John H. Ackerman.
PENNSYLVANIA.			
Bloomsburg.....	State Normal School.....	Coed....	D. J. Waller, jr.
California.....	Southwestern State Normal School.....	Coed....	Walter S. Hertzog.
Clarion.....	State Normal School.....	Coed....	W. R. Straughn.
East Stroudsburg.....	do.....	Coed....	E. L. Kemp.
Edinboro.....	do.....	Coed....	Frank E. Baker.
Erie.....	Erie Normal Training School.....	Coed....	Celestia J. Hershey.
Harrisburg.....	Teachers Training School.....	Coed....	Anne U. Wert.
Indiana.....	State Normal School.....	Coed....	James E. Ament.
Kutztown.....	Keystone State Normal School.....	Coed....	A. C. Rothermel.
*Lock Haven.....	Central State Normal School.....	Coed....	Charles Lose.
Marsfield.....	State Normal School.....	Coed....	W. D. Andrews.
Millersville.....	do.....	Coed....	P. Munroe Harbold.
*Philadelphia.....	Philadelphia Normal School for Girls.....	Women.	J. Eugene Baker.
Do.....	Philadelphia School of Pedagogy.....	Men....	Francis P. Brandt.
Reading.....	Normal and Training School for Girls.....	Women.	Martha A. Selders.
Shippensburg.....	Cumberland Valley State Normal School.....	Coed....	Ezra Lehman.
Slippery Rock.....	State Normal School.....	Coed....	Albert E. Malthy.
West Chester.....	do.....	Coed....	George M. Philips.
RHODE ISLAND.			
*Providence.....	Rhode Island State Normal School.....	Coed....	John L. Alger.
SOUTH CAROLINA.			
Orangeburg.....	Colored Normal, Industrial, Agricultural, and Mechanical College of South Caro- lina.	Coed....	Robert S. Wilkinson.
*Rockhill.....	Winthrop Normal and Industrial College.....	Women.	David B. Johnson.
SOUTH DAKOTA.			
Aberdeen.....	Northern Normal and Industrial School.....	Coed....	Willis E. Johnson.
*Madison.....	State Normal School.....	Coed....	J. W. Heston.
Spearfish.....	do.....	Coed....	Fayette L. Cook.
Springfield.....	do.....	Coed....	Gustav G. Wenzlaff.
TENNESSEE.			
Johnson City.....	East Tennessee State Normal School.....	Coed....	Sidney G. Gilbreath.
Memphis.....	West Tennessee State Normal School.....	Coed....	John W. Brister.
Murfreesboro.....	Middle Tennessee State Normal School.....	Coed....	R. L. Jones.
Nashville.....	State Agricultural and Industrial Normal School for Negroes.	Coed....	William J. Hale.
TEXAS.			
Canyon City.....	West Texas State Normal College.....	Coed....	R. B. Cousins.
Denton.....	North Texas State Normal College.....	Coed....	W. H. Bruce.
Huntsville.....	Sam Houston State Normal Institute.....	Coed....	H. F. Estill.
Prairie View.....	Prairie View State Normal and Industrial College (colored).	Coed....	Ed. L. Blackshear.
San Marcos.....	Southwest Texas State Normal School.....	Coed....	C. E. Evans.
VERMONT.			
Castleton.....	State Normal School.....	Coed....	Charles A. Adams.
Johnson.....	do.....	Coed....	Archibald G. Peaks.

XII.—PRINCIPALS OF NORMAL AND KINDERGARTEN TRAINING SCHOOLS—Contd.

1.—PUBLIC NORMAL SCHOOLS—Continued.

Location.	Name of Institution.	For men, for wo- men, or coeduca- tional.	Principal.
VIRGINIA.			
East Radford	State Normal School for Women	Women.	John P. McConnell.
*Farmville .....	.....do.....	Women.	Joseph L. Jarman.
Fredericksburg	State Normal and Industrial School for Women.	Women.	E. H. Russell.
Hampton	Hampton Normal and Agricultural Insti- tute (colored).	Coed....	H. B. Frissell.
*Harrisonburg	State Normal and Industrial School for Women.	Women.	Julian A. Burruss.
Petersburg	Virginia Normal and Industrial Institute (colored).	Coed....	James H. Johnston.
WASHINGTON.			
Bellingham	State Normal School	Coed....	George W. Nash.
*Cheney .....	.....do.....	Coed....	N. D. Showalter.
*Ellensburg .....	.....do.....	Coed....	W. E. Wilson.
WEST VIRGINIA.			
Athens	Concord State Normal School	Coed....	L. B. Hill.
Fairmont	State Normal School	Coed....	O. I. Woodley.
Glenville .....	.....do.....	Coed....	
Huntington	Marshall College, State Normal School ..	Coed....	Lawrence J. Corbly.
Institute	West Virginia Colored Institute	Coed....	Byrd Prillerman.
Shepherdstown	Shepherd College, State Normal School ..	Coed....	Thomas C. Miller.
West Liberty	State Normal School	Coed....	John C. Shaw.
WISCONSIN.			
Algoma	Door-Kewaunee County Training School ..	Coed....	J. A. Eichinger.
Alma	Buffalo County Training School	Coed....	H. H. Liebenberg.
Antigo	Langlade County Training School	Coed....	W. E. Switzer.
Berlin	Green Lake County Training School	Coed....	Edgar Packard.
Columbus	Columbia County Training School	Coed....	S. M. Thomas.
Eau Claire	Eau Claire County Training School	Coed....	F. E. Jaastad.
Gays Mills	Crawford County Training School	Coed....	G. E. Pratt.
Grand Rapids	Wood County Training School	Coed....	M. H. Jackson.
Janesville	Rock County Training School	Coed....	Frank J. Lowth.
Kaukauna	Outagamie County Training School	Coed....	Leo G. Schussmann.
La Crosse	State Normal School	Coed....	Fassett A. Cotton.
Ladysmith	Rusk County Training School	Coed....	R. H. Burns.
Manitowoc	Manitowoc County Training School	Coed....	Fred Christiansen.
Marinette	Marinette County Training School	Coed....	A. M. Olson.
Medford	Taylor County Training School	Coed....	J. H. Wheelock.
Menomonie	Dunn County Training School	Coed....	G. L. Bowman.
Do	Stout Institute	Coed....	L. D. Harvey.
Merrill	Lincoln County Training School	Coed....	A. H. Cole.
*Milwaukee	State Normal School	Coed....	Carroll G. Pearse.
Monroe	Green County Training School	Coed....	C. H. Dietz.
New London	Waupaca County Training School	Coed....	C. B. Stanley.
Oshkosh	State Normal School	Coed....	John A. H. Keith.
Phillips	Price County Training School	Coed....	D. A. Swartz.
Platteville	State Normal School	Coed....	W. J. Sutherland.
Reedsburg	Sauk County Training School	Coed....	W. E. Smith.
Rhineland	Oneida County Training School	Coed....	B. M. Dresden.
Rice Lake	Barren County Training School	Coed....	George M. Snodgrass.
Richland Center	Richland County Training School	Coed....	A. A. Thomson.
River Falls	State Normal School	Coed....	J. W. Crabtree.
St. Croix Falls	Polk County Training School	Coed....	C. W. Monty.
Stevens Point	State Normal School	Coed....	John F. Sims.
*Superior	Superior State Normal School	Coed....	V. E. McCaskill.
Viroqua	Vernon County Training School	Coed....	A. E. Smith.
Wausau	Marathon County Training School	Coed....	O. E. Wells.
Wautoma	Waushara County Training School	Coed....	G. E. Dafee.
*Whitewater	State Normal School	Coed....	Albert H. Yoder.

2.—PRIVATE NORMAL SCHOOLS.

Pea Ridge, Ark	Pea Ridge Masonic College	Coed....	S. C. Parish.
Denver, Colo	Denver Normal and Preparatory School ..	Coed....	Fred Dick.
New Haven, Conn	New Haven Normal School of Gymnastics ..	Coed....	Ernst H. Arnold.
Madison, Fla	Florida Normal Institute	Coed....	W. B. Cate.
Sockel Circle, Ga	Negro Normal and Industrial School	Coed....	James A. Love.

XII.—PRINCIPALS OF NORMAL AND KINDERGARTEN TRAINING SCHOOLS.

2.—PRIVATE NORMAL SCHOOLS—Continued.

Location.	Name of institution.	For men, for wo- men, or coeduca- tional.	Principal.
Chicago, Ill.....	American College of Physical Education...	Coed....	Frederic S. Goodrich.
Oak Park, Ill.....	Concordia Teachers College.....	Coed....	W. C. Kohn.
Angola, Ind.....	Tri-State College.....	Coed....	Littleton M. Sniff.
Danville, Ind.....	Central Normal College.....	Coed....	J. W. Laird.
Indianapolis, Ind.....	Normal College of the North American Gymnastic Union.	Coed....	Emil Rath.
Marion, Ind.....	Marion Normal Institute.....	Coed....	A. Jones.
Muncie, Ind.....	Muncie Normal Institute.....	Coed....	M. D. Kelly.
Bloomfield, Iowa.....	Normal and Scientific Institute.....	Coed....	H. C. Brown.
Nickerson, Kans.....	Nickerson College.....	Coed....	E. B. Smith.
Lexington, Ky.....	Chandler Normal School (colored).....	Coed....	Fannie J. Webster.
Louisa, Ky.....	Kentucky Normal College.....	Coed....	Walter M. Byington.
Boston, Mass.....	Boston Normal School of Gymnastics.....	Coed....	Baroness Rose Posse.
Do.....	Posse Normal School of Gymnastics.....	Coed....	Dudley A. Sargent.
Cambridge, Mass.....	Sargent Normal School of Physical Educa- tion.	Women.	
Battle Creek, Mich.....	Normal School of Physical Education.....	Coed....	Wm. W. Hastings.
Madison, Minn.....	Lutheran Normal School.....	Coed....	K. Lokensgard.
New Ulm, Minn.....	Dr. Martin Luther College.....	Coed....	A. Ackerman.
Fremont, Nebr.....	Fremont Normal School.....	Coed....	W. H. Clemmons.
Santee, Nebr.....	Santee Normal Training School (Indian).....	Coed....	Alfred L. Riggs.
Charlotte, N. C.....	Rowan Normal Industrial Institute.....	Coed....	C. S. Somerville.
Franklinton, N. C.....	Albion Academy (colored).....	Coed....	John A. Savage.
Raleigh, N. C.....	St. Augustine's School (colored).....	Coed....	A. B. Hunter.
Dayton, Ohio.....	St. Mary's Convent.....	Men.....	Brother George Deck.
Woodville, Ohio.....	Woodville Lutheran Normal School.....	Coed....	K. Hemminghaus.
Cheyney, Pa.....	Cheyney Training School (colored).....	Coed....	Leslie P. Hill.
Muncy, Pa.....	Lycoming County Normal School.....	Coed....	Sylvester B. Dunlap.
Philadelphia, Pa.....	Gratz College (Hebrew Normal).....	Coed....	Henry M. Speaker.
Charleston, S. C.....	Avery Normal Institute (colored).....	Coed....	I. Newton Owen.
Greenwood, S. C.....	Brewer Normal, Industrial, and Agricul- tural Institute (colored).	Coed....	Homer W. Stevens.
Lancaster, S. C.....	Lancaster Normal and Graded School (col- ored).	Coed....	M. D. Lee.
Sioux Falls, S. Dak.....	Lutheran Normal School.....	Coed....	Z. J. Ordal.
Memphis, Tenn.....	Le Moyne Normal Institute (colored).....	Coed....	Ludwig T. Larsen.
Morristown, Tenn.....	Morristown Normal Academy (colored).....	Coed....	Judson S. Hill.
Commerce, Tex.....	East Texas Normal College.....	Coed....	W. L. Mayo.
Harpers Ferry, W. Va.....	Stoier College (colored).....	Coed....	Henry T. McDonald.
Smoot, W. Va.....	Greenbrier Normal School.....	Coed....	L. O. Haynes.
Milwaukee, Wis.....	National German - American Teachers' Seminary.	Coed....	Max Griebisch.
St. Francis, Wis.....	Catholic Normal School.....	Men.....	J. M. Kasel.

3.—KINDERGARTEN TRAINING SCHOOLS.

(For kindergarten departments in normal schools see names of institutions starred (*) in list 1.)

Location.	Name of institution.	Principal.
Birmingham, Ala.....	Kindergarten Department, Training School for Teachers.	Agnes M. Wilson.
Mobile, Ala.....	Mobile Kindergarten Training School.....	A. Elizabeth Johnston.
Berkeley, Cal.....	Barnard Kindergarten Training School.....	Grace Everett Barnard.
San Francisco, Cal.....	Golden Gate Free Kindergarten Normal School..	Anna M. Stovall.
Pasadena, Cal.....	Broad Oaks Kindergarten Training School.....	Ada May Brooks.
Greeley, Colo.....	Kindergarten Department, the State Teachers College.	Elizabeth Maud Cannell.
Bridgeport, Conn.....	Froebel Normal Kindergarten-Primary Training School.	Mary C. Mills.
Do.....	The Fannie A. Smith Froebel Kindergarten Training School.	Fannie A. Smith.
Wilmington, Del.....	Miss Beaman's Training School for Kindergart- ners.	Elizabeth Beaman.
Washington, D. C.....	Columbia Kindergarten Training School.....	Misses Lippincott and Baker.
Do.....	Kindergarten Department, Howard University (colored).	Martha MacLear.
Do.....	Kindergarten Department, Lucy Webb Hayes Training School.	Nina M. Whitman.
Tallahassee, Fla.....	Kindergarten Department, State College for Women.	Mabel Wheeler.

XII.—PRINCIPALS OF NORMAL AND KINDERGARTEN TRAINING SCHOOLS—Contd.

3.—KINDERGARTEN TRAINING SCHOOLS—Continued

Location.	Name of institution.	Principal.
Atlanta, Ga.....	Atlanta Kindergarten Normal and Elementary School.	Willette A. Allen.
Do.....	Kindergarten Department, Atlanta University (colored).	Gertrude H. Ware.
Columbus, Ga.....	Free Kindergarten Association Training School.	Edwina Wood.
La Grange, Ga.....	Kindergarten Department, Training School at La Grange Settlement.	Charlotte A. Wing.
Savannah, Ga.....	Kate Baldwin Free Kindergarten Association Training School.	Hortense M. Orcutt.
Honolulu, Hawaii.....	Honolulu Free Kindergarten Training School....	Frances Lawrence.
Chicago, Ill.....	Chicago Kindergarten Institute.....	Mrs. Mary B. Page.
Do.....	Kindergarten Department, School of Education, Chicago University.	Alice Temple.
Do.....	Kindergarten Collegiate Institute of Chicago.....	Eva B. Whitmore.
Do.....	National Kindergarten College.....	Elizabeth Harrison.
Do.....	Pestalozzi-Froebel Kindergarten Training School.	Mrs. B. H. Hegner.
Indianapolis, Ind.....	The Teachers' College of Indianapolis.....	Mrs. Eliza A. Baker.
South Bend, Ind.....	The South Bend Training School.....	Mrs. Alma O. Ware.
Valparaiso, Ind.....	Kindergarten department, Valparaiso University.	Mrs. Mary A. Hamstock.
Cedar Falls, Iowa.....	Kindergarten department Iowa State Teachers College.	Florence E. Ward.
Des Moines, Iowa.....		Bessie M. Park.
Holton, Kans.....		
New Orleans, La.....		Margaret H. Leonard.
Baltimore, Md.....		Elizabeth Silkman
Boston, Mass.....		Annie C. Rust.
Do.....		Harriet Niel
Do.....		Mrs. Annie M. Perry.
Do.....		Lucy Wheelock.
Cambridge, Mass.....		Mrs. Edith L. Wolfard.
North Adams, Mass.....		Mrs. E. Graeme Graves.
Springfield, Mass.....		Hattie Twitchell.
Alma, Mich.....		Caroleen Robinson.
Big Rapids, Mich.....		S. Mary Holdridge.
Grand Rapids, Mich.....		Clara Wheeler.
Muskegon, Mich.....		Marjorie Kinnan.
Minneapolis, Minn.....		Stella L. Wood.
Kansas City, Mo.....		Elizabeth Moss.
Fremont, Nebr.....		Eva Mixer.
Omaha, Nebr.....		Mrs. Orietta S. Chittenden.
East Orange, N. J.....		Cora Webb Peet.
Trenton, N. J.....		
Buffalo, N. Y.....		Ella C. Elder.
Herkimer, N. Y.....	Kindergarten department, Folts Mission Institute	Amy Quackenbush.
New York (Brooklyn).....	Kindergarten department, Adelphi Normal School for Kindergartners.	Anna E. Harvey.
Do.....	School of Kindergarten Training, Pratt Institute..	Alice Fitts.
New York, N. Y.....	Kindergarten normal department, Ethical Culture School.	Catherine J. Tracy.
Do.....	Training School of the Froebel League.....	Mrs. Marion B. B. Lang-
Do.....	Jenny Hunter Kindergarten Training School....	zettel.
Do.....	Harriette M. Mills Kindergarten Training School.	Jenny Hunter.
Do.....	New York Kindergarten Association Training School.	Harriette M. Mills.
Do.....	Kindergarten department Hunter College of the City of New York	Laura Fisher.
Do.....	Kindergarten department, Teachers College, Columbia University.	Marie Bell Coles.
Athens, Ohio.....	Kindergarten department, Ohio University	Patty Smith Hill.
Cincinnati, Ohio.....	Cincinnati Kindergarten Association Training School.	Constance T. McLeod.
Do.....	Kindergarten department, Cincinnati Mis-	Lillian H. Stone.
Do.....	sonary Training School.	Lottie M. Shinnett.
Cleveland, Ohio.....	Cleveland Kindergarten Training School.....	Netta Faris.
Columbus, Ohio.....	Kindergarten Normal Training School.....	Elizabeth N. Samuel.
Oberlin, Ohio.....	Oberlin Kindergarten Training School.....	Bertha E. Montgomery.
Toledo, Ohio.....	Law Froebel Kindergarten Training School.....	Mary E. Law.
Portland, Oreg.....	Elizabeth K. Matthews Normal Training School.	Elizabeth K. Matthews.
Harrisburg, Pa.....	Froebel Kindergarten Training School.....	Evelyn Barrington.
Philadelphia, Pa.....	Froebelian School for Women.....	Emily D. Wright.

XII.—PRINCIPALS OF NORMAL AND KINDERGARTEN TRAINING SCHOOLS—Contd.

3.—KINDERGARTEN TRAINING SCHOOLS—Continued.

Location.	Name of institution.	Principal.
Philadelphia, Pa	Miss Hart's Training School	C. M. C. Hart.
Do	Kindergarten Department, Temple University...	Lucinda P. MacKenzie.
Pittsburgh, Pa	Kindergarten Department, Training School for Teachers, Colfax School No. 1.	Alice Parker.
Charleston, S. C.	Training School of the South Carolina Kindergarten Association.	Evelyn Holmes.
Greenville, S. C.	Kindergarten Department, Greenville Female College.	Kitty T. Perrin.
Knoxville, Tenn.	Knoxville Kindergarten Training Class	Sara E. Griggs.
Dallas, Tex.	Dallas Free Kindergarten Training School and Industrial Association.	Katherine Montgomery.
Fort Worth, Tex.	Fort Worth Kindergarten Training School	Elizabeth Hammers.
San Antonio, Tex.	San Antonio Kindergarten Training School	Rachel Plummer.
Salt Lake City, Utah...	Kindergarten Department, University of Utah...	Mary B. Fox.
Norfolk, Va.	Kindergarten Association Training School	Lillian Wadsworth.
Richmond, Va.	Richmond Training School for Kindergartners...	Lucy S. Coleman.

XIII.—SUPERINTENDENTS OF SCHOOLS FOR THE BLIND.

Location.	Name of institution.	Superintendent.
Talladega, Ala.	Alabama School for the Blind	F. H. Manning, M. A.
Do	Alabama School for the Negro Deaf and Blind....	Do.
Little Rock, Ark.	Arkansas School for the Blind	John H. Hinemon.
Do	Arkansas School for the Blind (negro)	Mrs. L. N. Jackson.
Berkeley, Cal.	California School for Deaf and Blind	L. E. Milligan.
San Francisco (1526 California St.), Cal.	San Francisco Association for the Blind	Ethel Clement.
Colorado Springs, Colo..	Colorado School for the Deaf and the Blind	W. K. Argo.
Hartford, Conn.	Connecticut Institute for the Blind	Geo. H. Marshall.
Do	Connecticut Institute for the Blind (department of trades).	R. E. Colby.
St. Augustine, Fla.	Florida School for the Deaf and the Blind	A. H. Walker.
Do	Florida School for the Deaf and the Blind (negro).	Do.
Macon, Ga.	Georgia Academy for the Blind	G. F. Oliphant.
Do	Georgia Academy for the Blind (negro)	Do.
Gooding, Idaho	Idaho State School for the Deaf and the Blind	W. E. Taylor.
Chicago, Ill.	Chicago Public Schools for the Blind	John B. Curtis.
Jacksonville, Ill.	Illinois School for the Blind	Robt. W. Woolston.
Indianapolis, Ind.	Indiana School for the Blind	George S. Wilson.
Vinton, Iowa	Iowa College for the Blind	George D. Eaton.
Kansas City, Kans.	State School for the Blind	Grace N. Roseberry.
Louisville, Ky.	Kentucky Institution for the Education of the Blind.	Susan B. Merwin.
Do	Kentucky Institution for the Education of the Blind (negro).	Do.
Baton Rouge, La.	Louisiana State School for the Blind	G. C. Huckaby.
Portland, Me.	Maine Institution for the Blind	J. Calvin Knapp.
Overlea, Md.	Maryland School for the Blind	John F. Bledsoe.
Do	Maryland School for the Colored Blind and Deaf.	Do.
Watertown, Mass.	Perkins Institution and Massachusetts School for the Blind.	Edward E. Allen.
Detroit, Mich.	Detroit Public School for Blind	Fanny S. Fletcher.
Lansing, Mich.	Michigan School for the Blind	C. E. Holmes.
Saginaw, Mich.	Michigan Employment Institution for the Blind.	Frank G. Putnam.
Fairbault, Minn.	Minnesota School for the Blind	James J. Dow.
Jackson, Miss.	Mississippi Institute for the Blind	R. S. Curry.
St. Louis, Mo.	Missouri School for the Blind	S. M. Green.
Boulder, Mont.	Montana School for the Deaf and the Blind	H. J. Menzemer, M. A.
Nebraska City, Nebr.	Nebraska School for the Blind	N. C. Abbott.
Jersey City, N. J.	Public School Classes for Blind	Henry Snyder.
Newark, N. J.	do	Janet G. Paterson.
Summit, N. J.	International Sunshine Society, Department for the Blind (Arthur Home).	Anna Welch.
Alamogordo, N. Mex.	New Mexico Institute for the Blind	R. R. Pratt.
Batavia, N. Y.	New York State School for the Blind	C. A. Hamilton, M. A.
Brooklyn (84th St. and 13th Ave.), N. Y.	International Sunshine Society, Department for the Blind (Dyker Heights Home).	Mrs. Grace McMullen.
Buffalo (489 Ellicott), N. Y.	Buffalo Association for the Blind	Carleton Sprague.
New York (University Ave.), N. Y.	Catholic Institute for the Blind	Sister M. Bertrand.
New York, N. Y.	New York Association for the Blind	Hon. Joseph H. Choate.
Do	New York Institute for the Education of the Blind.	Everett B. Tewksbury.

XIII.—SUPERINTENDENTS OF SCHOOLS FOR THE BLIND—(Continued).

Location.	Name of institution.	Superintendent.
New York, N. Y.....	Public School Classes for Blind Children.....	Gertrude E. Bingham.
Prince Bay, N. Y.....	St. Joseph Blind Asylum.....	Rev. M. J. Fitzpatrick.
Raleigh, N. C.....	State School for the Blind and the Deaf.....	John E. Ray, M. A.
Do.....	State School for the Blind and the Deaf (negro).....	Do.
Bathgate, N. Dak.....	North Dakota School for the Blind.....	B. P. Chapple.
Cincinnati, Ohio.....	Cincinnati School for the Blind.....	Miss Ida C. Gaddum.
Cleveland, Ohio.....	Public School Classes for Blind Children.....	R. B. Irwin.
Columbus, Ohio.....	Ohio State School for the Blind.....	Horace C. Maurer.
Muskogee, Okla.....	Oklahoma School for the Blind.....	O. W. Stewart.
Taft, Okla.....	Institute for Deaf, Blind, and Orphans (negro).....	J. R. Johnson.
Salem, Oreg.....	Oregon Institute for the Blind.....	E. T. Moores.
Overbrook, Pa.....	Pennsylvania Institution for the Instruction of the Blind.	Olin H. Burritt.
Pittsburgh, Pa.....	Western Pennsylvania Institution for the Blind.	Thos. S. McAloney.
Cedar Springs, S. C.....	South Carolina Institution for the Education of the Deaf and the Blind.	N. F. Walker, LL. D.
Do.....	South Carolina Institution for the Education of the Deaf and the Blind (negro).	Do.
Gary, S. Dak.....	South Dakota School for the Blind.....	Mrs. Lella M. Curl.
Nashville, Tenn.....	Tennessee School for the Blind.....	John V. Armstrong.
Do.....	Tennessee School for the Blind (negro).....	Do.
Austin, Tex.....	Institution for the Deaf, Dumb, and Blind Colored Youths.	J. I. Donaldson.
Do.....	State School for the Blind.....	E. E. Bramlette.
Ogden, Utah.....	Utah School for the Blind.....	Frank M. Driggs, M. A.
Brattleboro, Vt.....	Austine Institution for the Deaf and Blind.....	Helen G. Throckmorton.
Newport News, Va.....	State School for Colored Deaf and Blind Children.	William C. Ritter.
Staunton, Va.....	Virginia School for the Deaf and the Blind.....	W. A. Bowles.
Vancouver, Wash.....	Washington State School for the Blind.....	George H. Mullin.
Romney, W. Va.....	West Virginia School for the Deaf and the Blind.	Parley De Berry.
Antigo, Wis.....	Day School for the Blind.....	Katharine C. Grimes.
Bloomington, Wis.....	do.....	do.
Janesville, Wis.....	Wisconsin School for the Blind.....	J. T. Hooper.
Milwaukee, Wis.....	Day School for the Blind.....	Carrie B. Levy.
Racine, Wis.....	do.....	Catherine M. Light.

XIV.—SUPERINTENDENTS OF SCHOOLS FOR THE DEAF.

1.—STATE SCHOOLS.

Location.	Name of institution.	Superintendent.
Talladega, Ala.....	Alabama School for the Deaf.....	F. H. Manning, M. A.
Do.....	Alabama School for the Deaf (negro).....	Do.
Tucson, Ariz.....	University of Arizona, Department for the Deaf..	Howard Griffin.
Little Rock, Ark.....	Arkansas Deaf-Mute Institute.....	Isaac B. Gardner.
Do.....	Arkansas Deaf-Mute Institute (negro).....	Do.
Berkeley, Cal.....	California Institution for the Deaf and the Blind.	L. E. Milligan.
Colorado Springs, Colo.	Colorado School for the Deaf and the Blind.....	W. K. Argo.
Hartford, Conn.....	American School, at Hartford, for the Deaf.....	Frank R. Wheeler, M. A.
Mystic, Conn.....	Mystic Oral School for the Deaf.....	Tobias Brill.
Washington, D. C.....	Columbia Institution for the Deaf.....	Percival Hall, M. A.
Do.....	Gallaudet College for the Deaf ¹	Do.
Do.....	Kendall School for the Deaf ¹	Do.
St. Augustine, Fla.....	Florida School for the Deaf and the Blind.....	A. H. Walker.
Do.....	Florida School for the Deaf and the Blind (negro).	Do.
Cave Spring, Ga.....	Georgia School for the Deaf.....	Wesley O. Connor.
Do.....	Georgia School for the Deaf (negro).....	Do.
Gooding, Idaho.....	Idaho State School for the Deaf and the Blind...	W. E. Taylor, M. A.
Jacksonville, Ill.....	Illinois School for the Deaf.....	Charles P. Gillett.
Indianapolis, Ind.....	Indiana State School for the Deaf.....	Richard O. Johnson.
Council Bluffs, Iowa...	Iowa School for the Deaf.....	Henry W. Rothert.
Olathe, Kans.....	Kansas School for the Deaf.....	Mrs. Kate S. Herman.
Danville, Ky.....	Kentucky School for the Deaf.....	Augustus Rogers.
Do.....	Kentucky School for the Deaf (negro).....	Do.
Baton Rouge, La.....	Louisiana State School for the Deaf.....	W. S. Holmes.
Portland, Me.....	Maine School for the Deaf.....	Elizabeth R. Taylor.
Frederick, Md.....	Maryland School for the Deaf and Dumb.....	T. C. Forrester.
Overlea, Md.....	Maryland School for the Colored Blind and Deaf..	John F. Bledsoe.
Beverly, Mass.....	New England Industrial School for Deaf Mutes..	Louise Upham.
Northampton, Mass....	Clarke School for the Deaf ²	Caroline A. Yale, L. H. D.
Randolph, Mass.....	Boston School for the Deaf.....	J. P. E. O'Connell.

¹ Department of Columbia Institution for the Deaf.² School is under private management, but receives State pupils.

XIV.—SUPERINTENDENTS OF SCHOOLS FOR THE DEAF—Continued.

1.—STATE SCHOOLS—Continued.

Location.	Name of institution.	Superintendent.
Flint, Mich.....	Michigan School for the Deaf.....	Luther L. Wright.
Faribault, Minn.....	Minnesota School for the Deaf.....	James N. Tate, LL. D.
Jackson, Mis.....	Institution for the Deaf and Dumb.....	Richmond S. Dobyns.
Do.....	Institution for the Deaf and Dumb (negro).....	Do.
Fulton, Mo.....	Missouri School for the Deaf.....	J. Stuart Morrison.
Do.....	Missouri School for the Deaf (negro).....	Do.
Boulder, Mont.....	Montana School for the Deaf and the Blind.....	H. J. Menzemer, M. A.
Omaha, Nebr.....	Nebraska School for the Deaf.....	Frank W. Booth.
Trenton, N. J.....	New Jersey School for the Deaf.....	John P. Walker.
Santa Fe, N. Mex.....	New Mexico Asylum for the Deaf and Dumb.....	W. O. Connor, jr., M. A.
Albany, N. Y.....	Albany Home School for the Oral Instruction of the Deaf.	Quincy McGuire.
Buffalo, N. Y.....	Le Couteulx St. Mary's Institution for the Improved Instruction of Deaf Mutes. ¹	Sister Mary Anne Burke.
Malone, N. Y.....	Northern New York Institution for Deaf Mutes..	Edward C. Rider.
New York (904 Lexington Ave.), N. Y.	Association for the Improved Instruction of Deaf Mutes. ¹	Harris Taylor.
New York (Fort Washington Ave. and W. 163d St.), N. Y.	New York Institution for the Instruction of the Deaf and Dumb.	Enoch Henry Currier.
Rochester, N. Y.....	Western New York Institution for Deaf Mutes...	Z. F. Westervelt, LL. D.
Rome, N. Y.....	Central New York Institution for Deaf Mutes....	E. A. Gruver, M. A.
Westchester, N. Y.....	St. Joseph's Institute for the Improved Instruction of Deaf Mutes. ¹	Rose A. Fagan.
Morgantown, N. C.....	North Carolina School for the Deaf and Dumb....	E. McKay Goodwin.
Raleigh, N. C.....	State School for the Blind and the Deaf (negro)...	John E. Ray, M. A.
Devils Lake, N. Dak...	North Dakota School for the Deaf.....	J. W. Blattner, M. A.
Columbus, Ohio.....	Ohio State School for the Deaf.....	J. W. Jones, M. A.
Sulphur, Okla.....	Oklahoma School for the Deaf.....	Frank Read, jr.
Taft, Okla.....	Institute for Deaf, Blind, and Orphans (negro)...	J. R. Johnson.
Salem, Oreg.....	Oregon School for Deaf Mutes.....	E. S. Tillinghast.
Philadelphia (Belmont and Monument Aves.), Pa.	Home for the Training in Speech of Deaf Children Before They Are of School Age.	Mary S. Garrett.
Philadelphia (Mount Airy), Pa.	Pennsylvania Institution for the Deaf and Dumb.	A. L. E. Crouter.
Pittsburgh (Brookline), Pa.	De Paul Institute for Deaf Mutes ¹	Sister Mary Cecilia.
Scranton, Pa.....	Pennsylvania Oral School for the Deaf.....	Kate H. Fish.
Swissvale (Edgewood Park), Pa.	Western Pennsylvania Institution for the Instruction of the Deaf and Dumb.	Wm. N. Burt, Ph. D.
Providence, R. I.....	Rhode Island Institute for the Deaf.....	Edwin G. Hurd, M. A.
Cedar Spring, S. C.....	South Carolina Institution for the Education of the Deaf and the Blind.	N. F. Walker, LL. D.
Do.....	South Carolina Institution for the Education of the Deaf and the Blind (negro).	Do.
Sioux Falls, S. Dak....	South Dakota School for the Deaf.....	Howard W. Simpson.
Knoxville, Tenn.....	Tennessee Deaf and Dumb School.....	Thomas L. Moses.
Do.....	Tennessee Deaf and Dumb School (negro).....	Do.
Austin, Tex.....	Institute for the Deaf, Dumb, and Blind Colored Youths.	J. I. Donaldson.
Do.....	Texas School for the Deaf.....	G. F. Urbantke.
Ogden, Utah.....	Utah School for the Deaf.....	Frank M. Driggs.
Brattleboro, Vt.....	Austine Institution for the Deaf and Blind.....	Helen G. Throckmorton.
Newport News, Va.....	State School for Colored Deaf and Blind Children.	Wm. C. Ritter.
Staunton, Va.....	State School for the Deaf and the Blind.....	W. A. Bowles.
Vancouver, Wash.....	State School for the Deaf.....	Thomas P. Clarke.
Romney, W. Va.....	West Virginia Schools for the Deaf and the Blind..	Parley De Berry.
Delavan, Wis.....	Wisconsin State School for the Deaf.....	E. W. Walker.

2.—PRIVATE SCHOOLS.

Oakland, Cal.....	St. Joseph's Home for the Deaf.....	Mother M. Louis.
San Francisco, Cal.....	Holden Home Oral School for Deaf.....	Mrs. J. B. Holden.
Macon, Ga.....	Miss Arbaugh's School for Deaf Children.....	Laura L. Arbaugh.
Chicago (40th St. and Belmont Ave.), Ill.	Ephpheta School for the Deaf.....	Annie M. Larkin.
Chinchuba, La.....	Chinchuba Deaf-Mute Institute.....	Rev. James H. Blenk.
Baltimore (851 Hollins St.), Md.	F. Knapp's English and German Institute.....	Wm. A. Knapp.
Baltimore (Irvington), Md.	St. Francis Xavier's School for the Deaf.....	Sister M. Michael.
Kensington, Md.....	Home School for Little Deaf Children.....	Anna C. Reinhardt.
West Medford, Mass....	The Sarah Fuller Home for Little Deaf Children.	Eliza L. Clark.
North Detroit, Mich....	Evangelical Lutheran Deaf-Mute Institute.....	Rev. Wm. Gielow.

¹ School is under private management, but receives State pupils.

XIV.—SUPERINTENDENTS OF SCHOOLS FOR THE DEAF—Continued.

2.—PRIVATE SCHOOLS—Continued.

Location.	Name of institution.	Superintendent.
St. Louis (Vandeventer Ave. and Westminster Place), Mo.	Central Institute.....	Ethel M. Hilliard.
St. Louis (901 N. Garrison Ave.), Mo.	Immaculate Conception Institute for the Deaf....	Sisters of St. Joseph.
New York (534 W. 187th St.), N. Y.	Reno Margulies School for the Deaf.....	Mrs. A. Reno Margulies.
New York (1 Mount Morris Park, W.), N. Y.	Wright Oral School	John Dutton Wright, M. A.
Cincinnati (Gilbert and Yale Aves.), Ohio.	Miss Breckinridge's School.....	Mary S. Breckinridge.
Cincinnati (321 E. 6th St.), Ohio.	Notre Dame School for the Deaf.....	Sister Cornelia.
Philadelphia (1803 Vine St.), Pa.	Archbishop Ryan Memorial Institute for Deaf Mutes.	Sister M. Carmelia.
Philadelphia (Torresdale).	Forrest Hall Oral School.....	Mrs. J. Scott Anderson.
Lead, S. Dak.....	Black Hills School for the Deaf.....	Miss F. L. Willhoyte.
St. Francis, Wis.....	St. John's Institute for Deaf-Mutes.....	Rev. M. M. Gerend.

XV.—SUPERINTENDENTS OF SCHOOLS FOR THE FEEBLE-MINDED.

1.—STATE SCHOOLS.

Location.	Name of institution.	Superintendent.
Eldridge, Cal.....	Sonoma State Home.....	Wm. J. G. Dawson, M. D.
Ridge, Colo.....	State Home and Training School for Mental Defectives.	A. P. Busey, M. D.
Lakeville, Conn.....	Connecticut School for Imbeciles.....	Chas. T. La Monre, M. D.
Lincoln, Ill.....	Lincoln State School and Colony.....	Thos. H. Leonard, M. D.
Fort Wayne, Ind.....	Indiana School for Feeble-Minded Youth.....	George S. Bliss, M. D.
Glenwood, Iowa.....	Iowa Institution for Feeble-Minded Children.....	Geo. Mogridge, M. D.
Winfield, Kans.....	State Home for Feeble-Minded.....	F. C. Cave, M. D.
Frankfort, Ky.....	Kentucky Institution for Feeble-Minded Children.	H. C. Kehoe, M. D.
West Pownal, Me.....	Maine School for Feeble-Minded.....	Carl J. Hedin, M. D.
Owings Mills, Md.....	Maryland Training School for Feeble-Minded.....	Frank W. Keating, M. D.
Waverley, Mass.....	Massachusetts School for the Feeble-Minded.....	Walter E. Fernald, M. D.
Wrentham, Mass.....	Wrentham State School.....	Geo. L. Wallace, M. D.
Lapeer, Mich.....	Michigan Home for Feeble-Minded and Epileptic.	H. A. Haynes, M. D.
Fairbault, Minn.....	Minnesota School for Feeble-Minded and Colony for Epileptics.	A. C. Rogers, M. D.
Marshall, Mo.....	Missouri Colony for Feeble-Minded and Epileptics.	R. P. C. Wilson, M. D.
Boulder, Mont.....	Montana Training School for Backward Children.	H. J. Menzemer, M. A.
Beatrice, Nebr.....	Nebraska Institution for Feeble-Minded Youth..	W. S. Fast, M. D.
Laconia, N. H.....	New Hampshire School for Feeble-Minded Children.	Benjamin W. Baker, M. D.
Skillman, N. J.....	New Jersey State Village for Epileptics.....	David F. Weeks, M. D.
Vineland, N. J.....	New Jersey State Home for the Care and Training of Feeble-Minded Women.	Madeleine A. Hallowell.
Do.....	The Training School at Vineland, New Jersey....	E. R. Johnstone.
Newark, N. Y.....	New York State Custodial Asylum.....	Ethan A. Nevin.
New York (Randalls Island), N. Y.	New York City Children's Hospitals and Schools.	Mrs. Mary C. Dunphy.
Rome, N. Y.....	Rome State Custodial Asylum.....	Charles Bernstein, M. D.
Sonyea, N. Y.....	Craig Colony for Epileptics.....	W. T. Shanahan.
Syracuse, N. Y.....	Syracuse State Institution for Feeble-Minded Children.	O. H. Cobb, M. D.
Thiells, N. Y.....	Letchworth Village.....	Charles S. Little, M. D.
Kinston, N. C.....	North Carolina School for the Feeble-Minded...	Ira M. Hardy, M. D.
Grafton, N. Dak.....	Institution for Feeble-Minded.....	A. R. T. Wylie, M. D.
Columbus, Ohio.....	do.....	E. J. Emerick, M. D.
Enid, Okla.....	do.....	Wm. L. Kendall, M. D.
Elwyn, Pa.....	Pennsylvania Training School for Feeble-Minded Children.	Martin W. Barr, M. D.
Polk, Pa.....	State Institution for Feeble-Minded of Western Pennsylvania.	J. M. Murdoch, M. D.
Spring City, Pa.....	Eastern Pennsylvania State Institution for Feeble-Minded and Epileptic.	George C. Signor.
Slocum, R. I.....	Rhode Island School for the Feeble-Minded.....	Joseph H. Ladd, M. D.
Redfield, S. Dak.....	State School and Home for Feeble-Minded.....	J. K. Kutnewsky.
Provo, Utah.....	State Mental Hospital: Department for Feeble-Minded, Noninsane, and Epileptics.	D. H. Calder, M. D.
Medical Lake, Wash...	State Institution for Feeble-Minded.....	S. C. Woodruff.
Chippewa Falls, Wis...	Wisconsin Home for Feeble-Minded.....	Alfred W. Wilmarth, M. D.
Lander, Wyo.....	Wyoming School for Defectives.....	Thomas G. Maghee.

XV.—SUPERINTENDENTS OF SCHOOLS FOR THE FEEBLE MINDED—Continued.

2.—PRIVATE SCHOOLS.

Location.	Name of institution.	Superintendent.
Godfrey, Ill.....	"Beverly Farm" Home and School for Nervous and Backward Children.	Wm. H. C. Smith, M. D.
Red Oak, Iowa.....	Powell School for Backward and Mentally Deficient Children.	Vehura E. Powell, M. D.
Farmdale, Ky.....	The Stewart Home and School.....	John P. Stewart, M. D.
Baltimore, Md.....	"Gelston Heights" Private School for Feeble-Minded.	Samuel J. Fort, M. D.
Amherst, Mass.....	The Terrace Home School for Backward and Nervous Children.	
Barre, Mass.....	"Elm Hill" Private Home and School for Feeble-Minded.	George A. Brown, M. D.
Halifax, Mass.....	Standish Manor School.....	Mrs. Ellen C. Dresser.
Detroit, Mich.....	Reed School for Nervous and Backward Children.	Mrs. Frank A. Reed.
Kalamazoo (Comstock P. O.), Mich.	St. Anthony's School for Feeble-Minded and Backward Children.	
Kalamazoo, Mich.....	Wilbur Home and School for the Feeble-Minded.	J. W. Wilbur.
Northfield, Minn.....	The Baker School.....	Laura B. Baker.
St. Charles, Mo.....	Emmaus Asylum for Epileptics and Feeble-Minded.	Rev. J. W. Frankenfeld.
St. Louis (3809 Flad Ave.), Mo.	Miss Compton's School for Children of Retarded Mentality.	Fanny A. Compton.
Cranbury, N. J.....	"The Larches" Educational Sanitarium for Mental Defectives.	Mrs. Elise Gordon.
Haddonfield, N. J.....	Bancroft Training School.....	E. A. Farrington, M. D.
Orange, N. J.....	Seguin Physiological School for Children of Arrested Mental Development.	Mrs. Elsie M. Seguin.
Camillus, N. Y.....	Hill Crest School.....	Mrs. A. Cora Harmon.
Newburgh, N. Y.....	The Sycamore Farm Home School.....	N. R. Brewster.
Saratoga Springs, N. Y..	Miss Copeland's School for Mentally Defective Children.	Susan E. Copeland.
Lansdowne, Pa.....	The Brookwood School for Nervous and Backward Children.	Rachel W. Brewster.
Philadelphia (4815 War-rington Ave.), Pa.	The Biddle School for Nervous and Backward Children.	Grace Biddle de Quelin.
Sharon Hill, Pa.....	Miss McGrew's School for Boys of Defective Mentality.	Anna L. McGrew.
Murfreesboro, Tenn....	Bristol-Nelson Physiological School for Sub-Normal Children.	Cora Bristol-Nelson.
Austin, Tex.....	Texas Training School for Defectives and Sanita-rium for Mental and Nervous Diseases.	T. O. Maxwell, M. D.
Falls Church, Va.....	Gundry Home and Training School for Feeble-Minded and Epileptics.	Mattie Gundry.
Jefferson, Wis.....	The St. Coletta Institute.....	Sisters of St. Francis Assisi.
Lake Geneva, Wis.....	"Oak Leigh" Educational Sanitarium.....	Mary E. Pogue, M. D.
Watertown, Wis.....	Evangelical Lutheran Home for Feeble-Minded and Epileptics.	Louis Pingel.

XVI.—DIRECTORS OF SCHOOLS OF ART.

[List from American Art Annual, issued by the American Federation of Arts.]

Location.	Name of institution.	Director, etc.
ALABAMA.		
Auburn.....	Alabama Polytechnic Institute, Department of Architecture.	Joseph Hudnut, professor in charge.
CALIFORNIA.		
Alma.....	Cathedral Oaks School of Art.....	Charles F. Ingerson, director.
Berkeley.....	California School of Arts and Crafts (2119 Allston Way).	Frederick H. Meyer, director.
Do.....	University of California, Department of Archi-tecture.	John Galen Howard, director.
Los Angeles.....	Los Angeles School of Art and Design (602 South Alvarado St.).	L. E. Garden Macleod, direc-tor.
Do.....	University of Southern California, College of Fine Arts (201 S. Ave. 66).	William L. Judson, dean.
San Francisco.....	California School of Design (affiliated with the University of California).	Robert H. Fletcher, director.
Do.....	San Francisco Architectural Club (126 Post St.).	L. P. Rixford, superintend-ent.
Santa Barbara.....	State Normal School of Manual Arts and Home Economics.	Ednah A. Rich, president.
Santa Clara.....	University of Santa Clara, College of Architecture.	

XVI.—DIRECTORS OF SCHOOLS OF ART—Continued.

Location.	Name of institution.	Director, etc.
COLORADO.		
Denver.....	Fine Arts Academy of Denver (31 East 18th Ave.).	Abigail Holman, director.
Do.....	Students' School of Art (1311 Pearl St.).....	Henry Read, director.
CONNECTICUT.		
Hartford.....	Flagg Night School of Drawing for Men (96 Pearl St.).	Charles Noel Flagg, director.
Lyme.....	Old Lyme Art Class.....	Alon Bement, instructor.
New Haven.....	Yale School of the Fine Arts, Yale University.,...	W. S. Kendall, director.
Norwich.....	Norwich Free Academy.....	Mrs. Guy Warner Eastman, director.
DISTRICT OF COLUMBIA.		
Washington.....	Corcoran School of Art (17th St. and New York Ave.).	E. C. Messer, director.
Do.....	George Washington University, Department of Architecture.	H. L. Hodgkins, dean.
Do.....	Catholic University of America, College of Architecture.	
Do.....	Howard University (colored), College of Architecture.	
GEORGIA.		
Atlanta.....	George School of Technology, Department of Architecture.	Francis P. Smith, professor in charge.
Do.....	University of Georgia, College of Architecture....	
ILLINOIS.		
Chicago.....	Art Institute of Chicago (Lake Front, opposite Adams St.).	Theodore J. Keane, dean.
Do.....	Applied Arts Summer school (Lincoln Center)....	Florence H. Fitch, director.
Do.....	Chicago Academy of Fine Arts (81 E. Madison St.)	Carl N. Wernitz, director.
Do.....	School of Applied and Normal Art (310 Harvester Building, 606 South Michigan Ave.).	Emma M. Church, director.
Do.....	University of Chicago, School of Education, Department of Aesthetic and Industrial Education (corner Kimbark and 59th Sts.).	Walter Sargent, professor in charge.
Decatur.....	James Milliken University, School of Fine and Applied Arts.	Wm. M. Hekking, director.
Jacksonville.....	Illinois Woman's College, Art School.....	Nellie A. Knopf, director.
Peoria.....	Bradley Polytechnic Institute, School of Arts and Sciences.	Theodore C. Burgess, director.
Rockford.....	Rockford College, Art Department.....	Rose A. Baird, director.
Urbana.....	University of Illinois, School of Architecture.....	L. H. Provine, active head of department.
INDIANA.		
Indianapolis.....	Art School of the John Herron Art Institute (Pennsylvania and 16th Sts.).	Harold H. Brown, director.
Notre Dame.....	University of Notre Dame, College of Architecture.	Francis W. Kervick, head of department.
IOWA.		
Des Moines.....	Cumming School of Art.....	Charles A. Cummings, director.
Iowa City.....	College of Fine Arts, Department of Graphic and Plastic Arts, State University of Iowa.	Do.
KANSAS.		
Lawrence.....	University of Kansas, Department of Drawing and Painting.	William A. Griffith, head of department.
Manhattan.....	Kansas State Agricultural College, Department of Architecture and Drawing.	J. D. Walters, professor in charge.
KENTUCKY.		
Louisville.....	University of Louisville, Department of Architecture.	
LOUISIANA.		
Baton Rouge.....	Louisiana State University, College of Architecture.	
New Orleans.....	H. Sophie Newcomb Memorial College, School of Art.	Ellsworth Woodward, director.
Do.....	Tulane University, College of Technology.....	N. C. Curtis, director, department of architecture.

XVI.—DIRECTORS OF SCHOOLS OF ART—Continued.

Location.	Name of institution.	Director, etc.
MAINE.		
Boothbay Harbor.....	Commonwealth Art Colony, Summer School (95 Westminster St., Providence, R. I., in winter).	Asa G. Randall, director.
Kittery Point.....	The New School.....	Douglas J. Connah and Howard E. Smith, instructors.
Monhegan.....	Monhegan Summer School of Metal Work (University of Wisconsin, Madison, Wis., in winter).	William H. Varnum, instructor.
Ogunquit.....	Ogunquit Summer School.....	Charles H. Woodbury, instructor.
Orono.....	University of Maine, College of Architecture.....	Mrs. J. H. Hill, manager.
Portland.....	The School of Fine Arts, L. D. Sweat Memorial (corner Spring and High Sts.).	
Sebasco Estates, Casco Bay.	New York Normal Art and Music School.....	Frank H. Collins, director of drawing; New York City elementary schools in winter.
MARYLAND.		
Baltimore.....	Charcoal Club, Art School (N. E. Corner Howard and Franklin Sts.).	S. Edwin Whiteman, director.
Do.....	Maryland Institute, Schools of Art and Design (Mt. Royal Ave. and Lanvale St.).	Charles Yardley Turner, director.
Do.....	Rinehart School of Sculpture, Maryland Institute.	Ephraim Keyser, instructor.
MASSACHUSETTS.		
Boston.....	Eric Pape School of Art (Massachusetts Ave. and Boylston St.).	Eric Pape, director.
Do.....	Boston School of Metalry, 26 Lime St.....	George J. Hunt, director.
Do.....	Fenway School of Illustration (Fenway Studios).	Charles Emerson in charge.
Do.....	Massachusetts Institute of Technology, Department of Architecture.	Ralph Adams Cram, director of architecture.
Do.....	Massachusetts Normal Art School (corner Exeter and Newbury Sts.).	James Frederick Hopkins, principal.
Do.....	School of Fine Arts, Crafts, and Decorative Design (126 Massachusetts Ave.).	C. Howard Walker, principal.
Do.....	School of the Museum of Fine Arts (Huntington Ave.).	Alice F. Brooks, manager.
Do.....	The New School (248 Boylston St.).....	Vesper L. George and Douglas J. Connah, instructors.
Cambridge.....	Harvard University, Department of Architecture (Robinson Hall).	H. Langford Warren, chairman.
Do.....	Harvard University, Department of Landscape Architecture.	James Sturgis Pray, chairman.
Do.....	Harvard University, Division of Fine Arts.....	George Henry Chase, chairman.
Do.....	Harvard University, Summer School of Fine Arts.	Denman W. Ross, director.
Edgartown.....	Branstock Summer School of Art.....	Enid Yandell, instructor.
Hyannis.....	State Normal School, Summer Art Course.....	George T. Sperry, director.
New Bedford.....	Swain Free School of Design.....	H. A. Neyland, director.
Provincetown.....	Cape Cod Summer School of Art.....	Charles W. Hawthorne, director.
Vineyard Haven.....	Martha's Vineyard Summer School of Art.....	Arthur R. Freedlander, instructor.
Worcester.....	School of the Worcester Art Museum (24 Highland St.).	H. Stuart Michie, principal.
MICHIGAN.		
Ann Arbor.....	University of Michigan, Department of Architecture.	Emil Lorch, professor in charge.
Detroit.....	Detroit School of Design (Jefferson Ave. and Rivard St.).	George Theodore Hamilton, director.
Kalamazoo.....	Kalamazoo School of Art (Academy Building)...	Walter Collins, director.
Saugatuck.....	Summer School of Painting.....	Walter M. Clute, director.
MINNESOTA.		
Minneapolis.....	Handicraft Guild School of Design, Handicraft and Normal Art (89 S. 10th St.).	Mary C. Scovel, principal.
Do.....	Minneapolis School of Art.....	Joseph Breck, director.
Do.....	University of Minnesota, Department of Architecture.	Frederick M. Mann, professor in charge.
St. Paul.....	St. Paul Institute of Art (The Auditorium, 4th St.).	Lee Woodward Zeigler, director.
MISSISSIPPI.		
Jackson.....	Bellhaven Collegiate and Industrial Institute.....	Miss L. E. Luitwielder, director art department.

XVI.—DIRECTORS OF SCHOOLS OF ART—Continued.

Location.	Name of institution.	Director, etc.
MISSOURI.		
Kansas City.....	Fine Arts Institute (1020 McGee St.).....	Winifred Sexton, secretary.
St. Louis.....	Washington University, St. Louis School of Fine Arts (Skinker Road and Lindell Boulevard).	Edmund H. Wuerpel, director.
Do.....	Washington University, School of Architecture..	Alexander S. Langsdorf, dean.
Do.....	Washington University, Department of Drawing and History of Art.	Holmes Smith, professor in charge.
NEBRASKA.		
Lincoln.....	University of Nebraska, School of Fine Arts.....	Paul H. Grummann, director.
Do.....	University of Nebraska, College of Architecture..	
NEW HAMPSHIRE.		
Manchester.....	Manchester Institute of Arts and Sciences (Weston Building, 987 Elm St.).	Jennie Young, president art department.
NEW JERSEY.		
Newark.....	Fawcett School of Industrial Arts (55 Academy St.).	Cephas I. Shirley, director.
Do.....	Newark Technical School (367 High St.).....	Charles A. Colton, director.
Trenton.....	School of Industrial Arts (West State and Willow Sts.).	Frank Forrest Frederick, director.
NEW YORK.		
Albany.....	Albany School of Fine Arts (52 S. Swan St.).....	Edith Very, director.
Alfred.....	New York State College of Clay Working and Ceramics.	Charles F. Binns, director.
Belle Terre, L. I.....	New York School of Fine and Applied Arts, Summer School.	Frank A. Parsons, president.
Bearsville, Shady, Ulster Co.	Blue Dome Frat.....	Dewing Woodward, director.
Buffalo.....	Art School of the Albright Art Gallery (1110 Elmwood Ave.).	Arletta Lothrop, superintendent.
Chautauqua.....	Chautauqua School of Arts and Crafts.....	Royal B. Farnum, director.
Ithaca.....	Cornell University, College of Architecture.....	Clarence A. Martin, director.
New York City.....	Art Students' League of New York (215 W. 57th St., Borough of Manhattan).	Charles Vezin, president.
Do.....	Brooklyn Institute of Arts and Sciences (174 Montague St., Borough of Brooklyn).	Joseph H. Boston, instructor.
Do.....	Columbia University, School of Architecture.....	Austin W. Lord, director.
Do.....	Columbia University, Teachers College, Department of Fine Arts	Arthur W. Dow, director.
Do.....	Cooper Union for the Advancement of Science and Art (3d Ave. and 8th St., Borough of Manhattan).	Frederick Dielman, art director.
Do.....	Ethical Culture School, Art Department (Central Park West and 63d St.).	Irene Weir, director.
Do.....	Independent School of Art (1947 Broadway, Borough of Manhattan).	Homer Boss, director.
Do.....	Mechanics' Institute (20 West 44th St., Borough of Manhattan).	Louis Rouillion, director.
Do.....	National Academy of Design (109th St. and Amsterdam Ave., Borough of Manhattan).	Adolph A. Weinman, chairman school committee.
Do.....	New York School of Applied Design for Women (160 Lexington Ave., Borough of Manhattan).	Ellen J. Pond, superintendent.
Do.....	New York School of Fine and Applied Art (2237 Broadway, Borough of Manhattan).	Frank Alvah Parsons, president.
Do.....	New York University Summer School, Art Department (University Heights, Borough of the Bronx).	James Parton Haney, director (Winter, 500 Park Ave., Borough of Manhattan).
Do.....	Peters' Classes (152 W. 55th St., Borough of Manhattan).	Clinton Peters, instructor.
Do.....	Pratt Institute, Department of Fine and Applied Arts (Ryerson St. near De Kalb Ave., Borough of Brooklyn).	Walter Scott Perry, director.
Do.....	Sculpture Studio (159 E. 48th St., Borough of Manhattan).	Fred B. Clarke, secretary.
Do.....	Society of Beaux-Arts Architects (126 E. 75th St., Borough of Manhattan).	Wendell P. Blagden, chairman.
Do.....	Young Men's Christian Association, Art Department (318 W. 57th St., Borough of Manhattan).	Frank Alvah Parsons, instructor.
Do.....	Young Women's Christian Association, Art Department (7 E. 15th St., Borough of Manhattan).	Sophia A. Walker, director.
Do.....	School of Mural Painting and Allied Arts (624 Madison Ave.).	William L. Harris, director.

XVI.—DIRECTORS OF SCHOOLS OF ART—Continued.

Location.	Name of institution.	Director, etc.
NEW YORK—continued.		
Rochester.....	Mechanics' Institute, Department of Applied and Fine Arts (Bevier Memorial Bldg., 55 Plymouth Ave.).	Frank von der Lancken, superintendent.
Syracuse.....	Syracuse University, College of Fine Arts.....	George A. Parker, dean.
Woodstock.....	Art Students' League of New York, Summer School (Winter address, 215 W. 57th St., New York, N. Y.).	John F. Carlson, instructor.
OHIO.		
Ada.....	Ohio Northern University, College of Architecture	
Cincinnati.....	Art Academy (Eden Park).....	J. H. Gest, director.
Do.....	Ohio Mechanics Institute, Institute of Applied Arts.	John L. Shearer, president.
Cleveland.....	Cleveland School of Art (Juniper Road and Magnolia Drive).	Georgie Leighton Norton, principal.
Columbus.....	Columbus Art School (492 East Broad St.).....	Julius Golz, jr., director.
Do.....	Ohio State University, Department of Architecture.	Joseph N. Bradford, professor in charge.
Rye Beach, Lake Erie..	W. D. Campbell Normal Art School.....	W. D. Campbell, director.
Toledo.....	School of the Toledo Museum of Art.....	Almon C. Whiting, director.
OREGON.		
Corvallis.....	Oregon State Agricultural College, Department of Architecture.	F. D. McLouth, head of department.
Portland.....	School of the Portland Art Association, Museum of Art (5th and Taylor Sts.).	Anna Belle Crocker, director.
PENNSYLVANIA.		
Fort Washington.....	Darby School of Painting.....	Hugh H. Breckenridge, director.
Philadelphia.....	Drexel Institute, Department of Architecture (32d and Chestnut Sts.).	Arthur Truscott and John J. Dull, directors.
Do.....	Pennsylvania Academy of the Fine Arts (Broad St., above Arch).	Hugh H. Breckenridge, secretary.
Do.....	Philadelphia School of Design for Women (Broad and Master Sts.)	Emily Sartain, principal.
Do.....	Public Industrial Art School (Park Ave., below Master St.).	J. Liberty Tadd, director.
Do.....	School of Industrial Art of the Pennsylvania Museum (Broad and Pine Sts.).	Leslie W. Miller, principal.
Do.....	T Square Club (204 South Quince St.).....	Clarence Zantzinger, patron of the atelier.
Do.....	University of Pennsylvania, School of Architecture (College Hall).	Warren P. Laird, professor in charge.
Do.....	Spring Garden Institute, Department of Illustration.	Franz Lesshaft, instructor.
Pittsburgh.....	Carnegie Institute of Technology, School of Applied Design.	Arthur A. Hammerschlag, director.
Do.....	University of Pittsburgh, Fine and Industrial Art, School of Education (Grand Boulevard).	H. R. Kniffin, director.
RHODE ISLAND.		
Newport.....	Newport Art Association (108 Church St.).	John Elliott, director.
Providence.....	Rhode Island School of Design (11 Waterman St.).	L. Earle Rowe, director.
TENNESSEE.		
Knoxville.....	Summer School of the South, Art Department....	H. R. Kniffin, director (Winter Univ. of Pittsburgh).
TEXAS.		
Austin.....	University of Texas, School of Architecture.....	F. E. Giesecke, director.
College Station.....	Agricultural Mechanical College of Texas, Department of Architecture.	S. J. Fountain, superintendent.
VIRGINIA.		
Charlottesville.....	University of Virginia Summer School, Art Department.	Alon Bement, director.
Richmond.....	Art School of the Art Club of Richmond (521 W. Grace St.).	Nora Houston, director.

XVI.—DIRECTORS OF SCHOOLS OF ART—Continued.

Location.	Name of institution.	Director, etc.
WASHINGTON.		
Pullman.....	State College of Washington, Department of Architecture.	Rudolph Weaver, head of department.
Seattle.....	Washington State University, Department of Architecture.	Irving M. Thum, director.
Do	Seattle Art League (420 Boston Block).....	Ella Shepard Bush, director.
WISCONSIN.		
Madison.....	University of Wisconsin.....	William H. Varnum, instructor of drawing and design.
Milwaukee.....	State Normal School, School of Fine and Applied Arts.	Alexander Mueller, director.

XVII.—SUMMER SCHOOL DIRECTORS.

Location.	Summer school or affiliated institution.	Director or principal in 1914.	Probable date of session of 1915.	
			Opening.	Close.
ALABAMA.				
Auburn.....	Alabama Polytechnic Institute.....	James R. Rutland....	July 23	Sept. 3
Birmingham.....	Birmingham Summer Training School for Teachers.	C. B. Glenn.....	June 7	July 16
Do.....	Birmingham Summer Training School for Teachers. ¹	A. H. Parker.....	...do....	Do.
Daphne.....	Daphne State Normal School.....	B. B. Baker, A. M....	June 8	Do.
Florence.....	State Normal School.....	Henry J. Willingham.	June 9	July 17
Huntsville.....	Oakwood Manual Training School ¹			
Jacksonville.....	State Normal School.....	C. W. Daugeotte.....	June 1	July 15
Livingston.....	Alabama Normal College.....			
Mobile.....	Summer Training School.....	S. S. Murphy.....	June 15	Aug. 1
Troy.....	State Normal College.....	E. M. Shackelford.....	June 7	July 16
Tuskegee.....	Tuskegee Institute ¹	J. R. E. Lee.....	June 21	Do.
University.....	University of Alabama.....	James J. Doster, M. A.	June 10	July 21
ARIZONA.				
Flagstaff.....	Northern Arizona Normal School..	Rudolph H. H. Blome.	June 21	Aug. 13
Phoenix.....	Private Summer School.....	Daniel F. Jantzen.....	June 1	Aug. 15
ARKANSAS.				
Camden.....	Ouachita County Summer Normal ¹ ..			
Conway.....	Arkansas State Normal School.....	J. J. Doyne.....	June 7	July 30
Fayetteville.....	University of Arkansas.....	J. R. Jewell, Ph. D...	June 14	July 24
CALIFORNIA.				
Alma.....	Cathedral Oaks School of Arts.....		May 15	Sept. 1
Avalon.....	Camp Merriam (Pasadena Y. M. C. A.).	H. J. Knebel.....	June 20	July 1
Berkeley.....	California School of Arts and Crafts.	Frederick H. Meyer...	June 22	Aug. 1
Do.....	University of California.....	Charles H. Rieber, Ph. D.	June 21	July 31
Carmel.....	Chase Summer School of Art.....	C. P. Townsley.....	May 4	Sept. 19
Do.....	Class in Outdoor Sketching and Painting (California School of Arts and Crafts, Berkeley).	Frederick H. Meyer...	June 20	July 30
Los Angeles.....	Donaldson Summer School.....	Douglas Donaldson...	July 1	Aug. 6
Los Angeles (Hollywood).	Krotona Institute of Theosophy....			
Los Angeles.....	Public Vacation Schools.....	M. C. Bettinger.....	July 1	Aug. 15
Do.....	University of Southern California..	T. B. Stowell, Ph. D., LL.D.	June 28	Aug. 7
Do.....	Y. M. C. A. Summer School.....	J. A. Allen; J. A. Gillaspie.	July 1	Sept. 1
Pacific Grove.....	Marine Biological Laboratory (Leland Stanford, Jr. Univ.).	Oliver P. Jenkins and Charles H. Gilbert.	May 24	July 3
San Diego.....	State Normal School.....	Edward L. Hardy....	July 5	Aug. 13
Stockton.....	Stockton Commercial College and Normal School.	Adolph Johnson.....	July 1	Sept. 1
Swanton.....	{Camp California Summer School of Surveying (two terms).}	{F. S. Foote, Jr.....}	{May 14 June 11}	{June 11 July 9}

¹ Negro school.

XVII.—SUMMER SCHOOL DIRECTORS—Continued.

Location.	Summer school or affiliated institution.	Director or principal in 1914.	Probable date of session of 1915.	
			Opening.	Close.
COLORADO.				
Boulder.....	Colorado Chautauqua.....	F. A. Boggess.....	July 5	Aug. 13
Do.....	University of Colorado.....	Milo G. Derham.....	June 28	Aug. 7
Colorado Springs.....	Colorado College.....			
Denver.....	Denver Manual Training School for Teachers.	Milton Clauser.....	June 12	July 18
Do.....	Denver Normal and Preparatory School.	Fred Dick, M. A.....	June 16	July 21
Do.....	Fine Arts Academy, Normal Art Course.	Abigail Holman.....	July 1	Aug. 15
Do.....	School of Ophthalmology (University of Colorado).	Edward Jackson, M.D.	June 28	Aug. 7
Fort Collins.....	Colorado Agricultural College.....		June 14	July 24
Greeley.....	State Teachers College of Colorado..	Z. X. Snyder.....	June 22	July 31
Gunnison.....	State Normal School.....	James H. Kelley.....	June 14	July 23
Tolland.....	School of Mountain Field Biology (University of Colorado).	Francis Ramaley.....	June 22	Aug. 29
University Park.....	University of Denver.....	Wilber D. Engle, Ph.D.	June 14	July 23
Woodland Park.....	Summer School of Surveying (Colorado College).	George E. Martin.....	May 31	June 26
CONNECTICUT.				
Bantam.....	Camp Wonposet.....	Robert Tindall.....	June 30	Sept. 8
Danbury.....	State Normal Training School.....	J. R. Perkins.....	July 5	July 31
Eastford.....	Camp Eastford.....	Rev. J. P. Marvin.....	July 1	Sept. 1
East Haven.....	Shampishu Camp.....	Eunice R. Augur, Jenkintown, Pa.	June 15	Sept. 15
Greenwich.....	Fairhope Summer School of Organic Education.	Marietta L. Johnson...	July 7	Aug. 16
Hartford.....	Hillyer Institute (Y. M. C. A.).....			
Morris.....	Irving Camp.....	J. M. Furman (Tarrytown, N. Y.).	July 5	Aug. 31
New Britain.....	Public Vacation Schools.....			
New Haven.....	Hopkins Summer School.....	Arthur B. Woodford, Ph. D.	(¹)	
Do.....	Massawippi Summer School (North Hartley, Que.).	Charles U. Clark, Ph. D.	July 1	Sept. 25
Do.....	New Haven Normal School of Gymnastics.	E. H. Arnold, M. D...	Aug. 15	Sept. 15
Redding Ridge.....	Sandford School.....	D. S. Sanford, M. A...	July 1	Sept. 1
Rockville.....	Wayback Camp.....	Miriam Kenny.....	do	July 31
Storrs.....	Summer School of Nature Study and Agriculture.	A. F. Blakeslee.....	July 6	July 30
Wilton.....	Camp Sunnyside.....	Mr. and Mrs. James F. Rogers.	July 1	Aug. 15
DELAWARE.				
Dover.....	State College for Colored Students..	William C. Jason.....	June 28	July 31
Newark.....	Delaware College.....	Geo. A. Harter.....	June 20	Aug. 1
DISTRICT OF COLUMBIA.				
Washington (1622 H St., NW.).	Handicraft School.....	Miss E. S. Schroeder..	July 1	Sept. 1
Washington.....	Mount St. Alban Summer School for Sunday School Workers.	W. L. DeVries, Ph.D..	June 7	June 11
Washington (1227 Fifteenth St., NW.).	Sallie Lewin's (Miss) Summer School.	Sarah Lewin.....	May 20	Sept. 20
Washington.....	Teachers College (Catholic University of America).	Rev. Thomas E. Shields.	June 26	Aug. 7
Do.....	Y. M. C. A. Vacation School.....	Thos. W. Walton, M.A.	June 21	Aug. 14
FLORIDA.				
Gainsville.....	University of Florida.....	A. A. Murphree, LL.D	June 1	Aug. 30
Jacksonville.....	Y. M. C. A. Summer School.....	I. C. Baldwin.....	May 31	Aug. 6
Madison.....	Florida Normal Institute.....	W. B. Cate.....	June 15	Sept. 7
Sutherland.....	Southern College.....			
Tallahassee.....	A. and M. College Training School for Teachers. ²	John C. Wright, M. A.	June 15	Aug. 7
Do.....	Teachers' Summer Training School.	Edward Conradi.....	do	Do.

¹ No session.² Negro school.

XVII.—SUMMER SCHOOL DIRECTORS—Continued.

Location.	Summer school or affiliated institution.	Director or principal in 1914.	Probable date of session of 1915.	
			Opening.	Close.
GEORGIA.				
Athens.....	University of Georgia.....	T. J. Woofter, LL. D.	July 1	Aug. 3
Atlanta.....	Georgia School of Technology.....	A. B. Morton, M. A....	July 19	Sept. 10
Macon.....	Mercer University.....	Robert L. Pulliam....	June 16	Aug. 25
Mount Berry.....	The Berry School.....	W. C. Atkins.....	May 10	Aug. 15
Oxford.....	Emory College.....	Edward K. Turner, Ph. D.	June 15	Aug. 11
IDAHO.				
Albion.....	State Normal School.....	George A. Axline.....	July 12	Aug. 25
Boise.....	State Summer School.....	Clinton E. Rose, M. A.	...do....	Do.
Lewiston.....	State Normal School.....	George H. Black.....	June 8	July 23
Moscow.....	University of Idaho.....	Philip H. Soulen.....	June 16	July 26
Pocatello.....	State Academy.....	Miles F. Reed.....	...do....	July 31
ILLINOIS.				
Carbondale.....	Southern Illinois State Normal University.	H. W. Shryock.....	June 14	July 23
Charleston.....	Eastern Illinois State Normal School.	L. C. Lord.....	June 21	July 30
Chicago (42d St. and Grand Blvd.).	American College of Physical Education.	M. A. Wood.....	July 1	Aug. 7
Chicago (304 S. Wabash Ave.).	American Conservatory Summer Normal.	John J. Hattstaedt....	June 28	July 31
Chicago (523 Fine Arts Bldg.).	Anna Groff-Bryant Institute of Vocal Art.	.....	.....	.....
Chicago (Lincoln Center).	Applied Arts Summer School (Atkinson Mentzer & Co.).	Florence H. Fitch....	July 5	July 26
Chicago.....	Armour Institute of Technology....	H. M. Raymond.....	June 28	Aug. 6
Do.....	Art Institute of Chicago.....	T. J. Keane.....	...do....	Sept. 17
Do.....	Chicago Normal College.....	William B. Owen.....	...do....	July 30
Chicago (310 Harvester Bldg.).	Chicago School of Applied and Normal Art.	.....	.....	.....
Chicago (116 S. Michigan Ave.).	Chicago School of Civics and Philanthropy.	Graham Taylor.....	June 23	Do.
Chicago (430 S. Wabash Ave.).	Chicago School of Physical Education and Expression.	Mrs. Robert L. Parsons	June 26	Aug. 2
Chicago (328 Wabash Ave.).	Columbia School of Music.....	Clare Osborne Reed...	June 21	July 24
Chicago (Auditorium Bldg.).	Cosmopolitan School of Music and Dramatic Art.	Mrs. W. S. Bracken...	June 28	July 31
Chicago (6 N. Michigan Ave.).	Gregg Summer Normal School.....	H. J. Holm.....	...do....	Aug. 6
Chicago.....	Lewis Institute.....	George N. Carman, M. A.	...do....	Do.
Chicago (2944 Michigan Blvd.).	National Kindergarten College.....	Elizabeth Harrison....	June 15	Do.
Chicago (2301 Prairie Ave.).	National Summer School of Music...	Ada M. Fleming.....	June 28	July 23
Chicago (330 E. 22d St.).	New School of Methods in Public School Music (American Book Co.).	W. M. Morton.....	July 1	July 16
Chicago (20 N. Ashland Blvd.).	School of Expression (Boston, Mass.).	S. S. Curry, Ph. D....	Aug. 2	Aug. 27
Chicago (712 Fine Arts Bldg.).	Sherwood Music School.....	Walter Keller.....	June 21	Aug. 1
Chicago (58th St. and Kenwood Ave.).	University High School.....	Franklin W. Johnson, M. A.	...do....	Sept. 3
Chicago.....	University of Chicago.....	Harry Pratt Judson..	...do....	Do.
Chicago (19 S. La Salle St.).	Y. M. C. A. Summer School (Central department).	A. L. Ward.....	June 28	Aug. 28
Chicago.....	Y. M. C. A. Summer School (Division Street department).	J. D. Ellis.....	July 1	Aug. 23
Do.....	Y. M. C. A. Summer School (Wilson Avenue department).	H. Mendelsohn.....	July 7	Aug. 29
De Kalb.....	Northern Illinois State Normal School.	John W. Cook.....	June 21	July 30
Evanston.....	American Institute of Normal Methods.	Edward B. Birge.....	July 12	Do.
Do.....	Northwestern University, College of Liberal Arts.	C. S. Marsh.....	June 21	Do.
Joliet.....	Township High School.....	J. S. Brown.....	...do....	Do.
Macomb.....	Western Illinois State Normal School.	W. P. Morgan.....	June 14	July 23

XVII.—SUMMER SCHOOL DIRECTORS—Continued.

Location.	Summer school or affiliated institution.	Director or principal in 1914.	Probable date of session of 1915.	
			Opening.	Close.
ILLINOIS—continued.				
Normal.....	Illinois State Normal University...	David Felmley.....	June 14	Sept. 3
Peoria.....	Summer School of Manual Training and Domestic Economy (Bradley Polytechnic Institute).	Charles A. Bennett....	June 21	July 24
Urbana.....	University of Illinois.....	W. C. Bagley	June 16	Aug. 13
INDIANA.				
Angola.....	Tri-State College.....	L. M. Sniff, M. A.....	June 8	Aug. 27
Bloomington.....	Indiana University.....	William L. Bryan.....	June 24	Sept. 1
Culver.....	Culver Summer Naval, Cavalry, and Woodcraft Schools.	Col. L. R. Gignilliat...	June 30	Aug. 25
Danville.....	Central Normal College.....	J. W. Laird.....	May 26	Aug. 15
Earlham.....	Earlham College.....			
Goshen.....	Goshen College.....	Paul E. Whitmer.....	June 6	Aug. 27
Greencastle.....	De Pauw University.....	H. B. Gough.....	June 1	Aug. 22
Hanover.....	Hanover College.....	W. A. Mills.....	June 17	Sept. 1
Do.....	Summer School for Librarians.....	Henry N. Sanborn....	July 1	Aug. 15
Indianapolis.....	Butler College.....	Thomas C. Howe.....	June 14	July 24
Do.....	Indiana Central University.....	H. W. Marshall.....	May 24	Aug. 14
Do.....	Indianapolis Vacation Schools.....	Mrs. Maud Moudy....	June 25	Aug. 1
Do.....	John Herron Art Institute.....	Harold H. Brown.....	June 14	Sept. 4
Do.....	Normal College of the North American Gymnastic Union.	Emil Rath.....	July 5	Aug. 5
Do.....	Teachers' College of Indianapolis...	Mrs. Eliza A. Blaker..	Apr. 7	Sept. 1
La Fayette.....	Summer School for Teachers of Agriculture, Home Economics, and Manual Training (Purdue University).	George L. Roberts....	June 12	July 24
Moores Hill.....	Moores Hill College.....	Harry A. King.....	June 1	Aug. 20
Muncie.....	Muncie Normal Institute (2 terms).	M. D. Kelly.....	June 7	Aug. 26
North Manchester.....	Manchester College.....	Otho Winger, M. A....	May 26	Aug. 13
Notre Dame.....	St. Mary's College and Academy...	Mother M. Cyriaca....	July 1	Aug. 7
Oakland City.....	Oakland City College.....			
Rolling Prairie.....	Interlaken School Summer Camp..	E. A. Rumely.....	July 1	Sept. 1
St. Mary-of-the-Woods.....	St. Mary of the Woods College.....	Mother Mary Cleophas	do.....	Aug. 5
South Bend.....	Summer Vacation Schools.....	L. J. Montgomery.....	June 6	July 30
Terre Haute.....	Indiana State Normal School.....	W. W. Parsons.....	June 21	Sept. 10
Valparaiso.....	Valparaiso University.....	Henry B. Brown, M. A.	May 25	Aug. 12
Winona Lake.....	Winona College.....	Johnathan Rigdon, Ph. D.	June 7	Aug. 27
IOWA.				
Ames.....	Iowa State College of Agriculture and Mechanic Arts.	G. M. Wilson.....	June 14	July 23
Cedar Falls.....	Iowa State Teachers College	Homer H. Seerley.....	May 26	Aug. 17
Cedar Rapids.....	Coe College.....	J. A. Marquis.....	June 21	July 30
Do.....	Palmer Method Summer School (Cedar Rapids Business College).	W. C. Henning.....	June 7	Aug. 30
Des Moines.....	Des Moines College.....	David E. Cloyd, M. A.	May 31	Aug. 21
Do.....	Drake University.....	Wm. F. Barr, A. M....	June 21	July 30
Do.....	Highland Park College.....	George P. Magill.....	June 8	July 31
Fayette.....	Upper Iowa University.....	Ellsworth Lowry, M. A.	June 21	July 30
Indianola.....	Simpson College.....	E. A. Jenner, M. A....	June 14	Do.
Iowa City.....	State University of Iowa.....	W. C. Wilcox, LL. D..	June 21	July 31
Mount Pleasant.....	Iowa Wesleyan College.....	Edwin A. Schell.....	June 14	July 23
Mount Vernon.....	Cornell College.....	Geo. H. Betts, Ph. D..	June 21	July 30
Oskaloosa.....	Penn College.....	W. Irving Kelsey.....	June 14	July 23
Shenandoah.....	Western Normal College (2 terms).	L. H. Davis.....	May 25	June 19
Sioux City.....	Morningside College.....	E. A. Brown, M. A....	June 28	July 23
Tabor.....	Tabor College.....	Nelson W. Wehrhan..	June 14	July 30
			June 22	Aug. 3
KANSAS.				
Baldwin.....	Baker University.....	Lillian Scott, M. A....	June 5	July 17
Emporia.....	State Normal School.....	Thomas W. Butcher..	June 3	July 31
Hays.....	Western State Normal School.....	W. A. Lewis.....	May 31	Do.
Lawrence.....	University of Kansas (two terms)...	Arvin Olin.....	June 10	July 21
Manhattan.....	Kansas State Agricultural College..	Edwin L. Holton.....	June 16	Aug. 11
Pittsburg.....	State Manual Training Normal School.	W. A. Brandenburg...	June 3	July 28
Topeka.....	Shawnee County Normal Institute.	John F. Eby.....	June 1	July 1
Do.....	Washburn College.....	W. A. Harshbarger....	June 14	July 26
Wichita.....	Fairmount College.....	Arthur J. Hoare.....	June 7	July 31

XVII.—SUMMER SCHOOL DIRECTORS—Continued.

Location.	Summer school or affiliated institution.	Director or principal in 1914.	Probable date of session of 1915.	
			Opening.	Close.
KENTUCKY.				
Bowling Green.....	Western Kentucky State Normal School.	H. H. Cherry, L. L. D.	June 15	July 23
Frankfort.....	Kentucky Normal and Industrial Institute. ¹	.....do.....	.....do.....	Do.
Lexington.....	State University of Kentucky.....	J. T. C. Noe.....	June 16	Aug. 10
Richmond.....	Eastern Kentucky State Normal School.	J. G. Crabbe.....	.....do.....	July 23
LOUISIANA.				
Baton Rouge.....	Louisiana State University.....	Alex B. Coffey.....	June 7	Aug. 6
Do.....	Southern University and A. & M. College. ¹	J. S. Clark, Ph. D.....	.....do.....	July 17
La Fayette.....	Southwestern Louisiana Industrial Institute.	.....do.....	.....do.....	.....do.....
Natchitoches.....	Louisiana State Normal School.....	V. L. Roy.....	June 1	Aug. 10
New Orleans.....	Tulane University.....	A. B. Dinwiddie, Ph. D.	June 14	July 24
Do.....	Tulane University Summer School of Medicine.	Isadore Dyer.....	June 7	Sept. 15
Ruston.....	Louisiana Industrial Institute.....	J. E. Keeny.....	June 10	July 22
Shreveport.....	Summer School for Teachers ¹	T. H. Kane.....	June 7	July 17
MAINE.				
Belfast (R. F. D. No. 6).	Navajo Camps for Boys.....	Orrin J. Dickey.....	June 25	Sept. 4
Boothbay Harbor.....	Commonwealth School of Art and Industry.	Asa G. Randall.....	July 6	Aug. 15
Castine.....	Eastern State Normal School.....	Albert F. Richardson.....	.....do.....	.....do.....
China.....	Camp Teconnet for Girls.....	Charles F. Towne.....	June 30	Sept. 1
Denmark.....	Wyonegonic and Winona Camps.....	C. E. Cobb.....	.....do.....	Aug. 28
Farmington.....	State Normal School.....	.....do.....	.....do.....	.....do.....
Five Islands.....	Seguinland School of Photography..	Clarence H. White....	July 5	Aug. 21
Fort Kent.....	Madawaska Training School.....	.....do.....	.....do.....	.....do.....
Gorham.....	Western State Normal School.....	W. E. Russell.....	.....do.....	.....do.....
Harrison.....	Camp Katahdin.....	C. W. Loveland and G. E. Pike.	June 25	Aug. 20
Do.....	Eden Camp and Eden Club.....	Clara Drew.....	June 23	Sept. 6
Do.....	Idlewild Camp.....	John M. Dick.....	June 25	Aug. 27
Machias.....	Washington State Normal School..	Wm. L. Powers.....	July 6	Aug. 13
Monhegan.....	Independent School of Art.....	.....do.....	.....do.....	.....do.....
Do.....	Monhegan Summer School of Metal Work.	.....do.....	.....do.....	.....do.....
Monmouth.....	Camp Cobbossee for Boys.....	Harry R. Mooney.....	June 15	Sept. 15
Naples.....	Camp Keoka.....	C. S. Mitchell.....	July 1	Aug. 31
North Limington.....	Wildwood Camp.....	Helen Mayo.....	.....do.....	Aug. 26
Ogunquit.....	Woodbury Summer School of Drawing and Painting.	Charles H. Woodbury..	July 6	Aug. 14
Orono.....	University of Maine.....	Robert J. Aley.....	June 28	Aug. 6
Presque Isle.....	Aroostook State Normal School.....	S. L. Merriman, M. A.	July 21	Aug. 27
Raymond.....	Camp Ono, Home Camp for Girls.....	Nellie M. Hoyt.....	July 1	Aug. 31
South Bristol.....	Camp Joliet for Boys.....	Walter H. Young.....	.....do.....	Do.
South Casco.....	Shaw Business College.....	F. L. Shaw.....	.....do.....	Sept. 1
South Harpswell.....	Harpswell Laboratory (Tufts College, Tufts College, Mass.).	J. S. Kingsley.....	June 20	Sept. 10
South Hope.....	Alford Lake Camp for Girls.....	Florence M. Marshall (206 East 23d St., New York, N. Y.).	June 30	Aug. 25
South Limington.....	Moy-Mo-Da-Yo Camp for Girls.....	Elizabeth Moody and Helen Mayo.	July 1	Aug. 26
Technology.....	Surveying Camp (Massachusetts Institute of Technology).	A. G. Robbins.....	Aug. 4	Sept. 21
Unity.....	Camp Winnecook for Boys.....	Herbert L. Rand (21 Shore Road, Salem, Mass.).	July 1	Aug. 31
Wayne.....	Camp Androscoggin for Boys.....	E. M. Healy.....	June 30	Sept. 3
MARYLAND.				
Baltimore.....	Johns Hopkins University.....	Edward F. Buchner..	July 6	Aug. 13
Do.....	Peabody Conservatory of Music.....	Frederick R. Huber...	July 1	Aug. 12
Do.....	Public Vacation Schools.....	Charles J. Koch.....	July 5	Aug. 27
Do.....	Public Vacation Schools ¹.....	.....do.....	.....do.....	Do.
Do.....	Y. M. C. A. Summer School.....	M. A. Clemens.....	June 15	Aug. 15
Croome.....	Croome Settlement School ¹	Susie Willes.....	July 1	Oct. 1
Frederick.....	Summer School for Teachers.....	.....do.....	.....do.....	.....do.....
Princess Anne.....	Maryland Agricultural College, Eastern Branch. ¹	T. H. Kiah.....	June 28	Aug. 6

¹ Negro school.

XVII.—SUMMER SCHOOL DIRECTORS—Continued.

Location.	Summer school or affiliated institution.	Director or principal in 1914.	Probable date of session of 1915.	
			Opening.	Close.
MASSACHUSETTS.				
Amherst.....	Massachusetts Agricultural College.	William D. Hurd.....	July 1	July 30
Do.....	School for Rural Social Service.....	.....do.....	July 15	Do.
Auburndale (Lasell Seminary).	American Institute of Normal Methods (Silver, Burdett & Co.).	Osbourne McConathy.	July 7	July 28
Belmont.....	Camp Mooswa (Lake Annis, Nova Scotia).	G. H. Cain.....	July 1	Sept. 1
Boston (20 B. Aldworth).	Alexander Robinson Sketching Tours. ¹	.....	.....	.....
Boston.....	Boston Floating Hospital Post-Graduate Course for Nurses.	Sarah A. Egan.....	June 27	Sept. 15
Do.....	Emerson College of Oratory.....	Walter B. Tripp.....	July 8	Aug. 1
Boston (30 Huntington Ave.).	Faelten Pianoforte School.....	Carl Faelten.....	June 18	Sept. 16
Do.....	Farmer's (Miss) School of Cookery..	Fannie M. Farmer....	² July 1	² July 15
Boston.....	Harvard Graduate School of Medicine.	Horace D. Arnold, M. D.	July 10	Aug. 13
Do.....	Huntington School (Y. M. C. A.)...	Ira A. Flinner, M. A...	June 1	Sept. 30
Do.....	Massachusetts Institute of Technology.	Richard C. Maclaurin, LL. D.	June 15	Sept. 15
Boston (779 Beacon St.)	Posse Normal School of Gymnastics.	Marguerite E. Moir....	³ June 18	³ Sept. 26
Boston (585 Boylston St.).	School of Eugenics.....	Evangeline W. Young, M. D.	July 3	Aug. 1
Boston (306 Pierce Bldg.).	School of Expression (four terms)..	S. S. Curry, Ph. D....	July 5	Aug. 10
Boston.....	Simmons College.....	Edward H. Eldridge, Ph. D.	May 16	Oct. 1
Bourne.....	Old Colony Union Industrial School.	Agnes Hatch.....	July 5	Aug. 13
Brewster.....	Sea Pines Personality Camp.....	Faith Bickford.....	July 1	Aug. 31
Brockton.....	Public Vacation Schools.....	George L. Farley.....	July 8	Aug. 20
Cambridge (8 Everett St.).	Cambridge Normal School of Dancing.	Fannie Faulheber	July 6	Aug. 15
Cambridge.....	Harvard University.....	J. H. Ropes.....	May 31	July 24
Hyannis.....	State Normal School.....	William A. Baldwin..	July 1	Aug. 12
Lowell.....	Y. M. C. A. Summer School.....	John E. Barr.....	July 8	Aug. 8
Lynn.....	Public Elementary School.....	.....	July 6	Aug. 14
Malden.....	Y. M. C. A. Summer School.....	Mrs. Cora H. Dempsey	.....	.....
Melrose.....	do.....	G. W. Williams.....	July 7	Aug. 22
Oak Bluffs.....	Treat School.....	.....	June 30	Aug. 8
Provincetown.....	Cape Cod School of Art.....	Charles W. Hawthorne	.....	.....
Do.....	Summer School of Drawing and Painting.	E. Ambrose Webster..	July 1	Sept. 1
Shattuckville.....	Camp Catamount.....	Alice A. Crouch.....	June 1	Oct. 1
Somerville.....	Y. M. C. A. Summer School.....	Emma G. Blanchard..	July 1	Sept. 1
South Orleans.....	"Quanset," Cape Cod Camp for Girls.	Mrs. E. A. Hammatt (Newton Center, Mass.).	July 5	Aug. 13
Springfield.....	Y. M. C. A. Summer School.....	Miss B. W. Dearborn..	July 1	Sept. 1
Vineyard Haven.....	Martha's Vineyard School of Art..	Arthur R. Freedlander	....do....	Do.
Wellfleet.....	Camp Chequessett.....	Wm. G. Vinal, M. A. (State Normal School, Providence, R. I.).	.....	.....
Woburn.....	Warren Academy Free Industrial School.	Frank Carter.....	June 22	Aug. 13
Woods Hole.....	Marine Biological Laboratory.....	Frank R. Lillie.....	July 1	Aug. 12
MICHIGAN.				
Adrian.....	Adrian College.....	W. A. Robinson.....	June 28	Aug. 21
Alma.....	Alma College.....	George B. Randels, Ph. D.	June 21	July 30
Ann Arbor.....	University of Michigan.....	Edward H. Kraus....	June 28	Aug. 20
Battle Creek.....	Normal School of Physical Education.	.....	.....	.....
Bay View.....	Bay View Summer University.....	John M. Hall.....	July 12	Do.
Berrien Springs.....	Emmanuel Missionary College.....	Otto J. Graf.....	June 15	July 26
Big Bay.....	Camp So-sa-wa-ga-ming.....	Clarence E. Snyder, M. A.	July 1	Sept. 1

¹ Foreign location.
² Special course for teachers.
³ Opening of first courses; closing of last courses.
⁴ Department of Law, June 21-Aug. 27; Department of Medicine and Surgery, June 28-Aug. 6.

XVII.—SUMMER SCHOOL DIRECTORS—Continued.

Location.	Summer school or affiliated institution.	Director or principal in 1914.	Probable date of session of 1915.	
			Opening.	Close.
MICHIGAN—contd.				
Big Rapids.....	Ferris Institute.....	W. N. Ferris.....	July 5	Aug. 13
Corey.....	Camp Eberhart (Y. M. C. A., South Bend, Ind.).	F. H. Cheley.....	June 1	Aug. 1
Detroit.....	Cass Technical High School.....	E. G. Allen.....	June 21	Aug. 13
Do.....	Detroit Conservatory of Music.....	F. L. York, M. A.....	June 28	July 31
Detroit (Grand Circus Park).	Detroit Technical Institute (Y. M. C. A.).	B. D. Edwards.....	June 21	Aug. 13
Detroit.....	Michigan Conservatory of Music....	Frederic L. Abel.....	June 19	July 24
Detroit (Fine Arts Bldg.).	School of Fine Arts (outdoor classes).	John P. Wicker.....	June 10	Sept. 30
Fountain.....	Kenmore Institute Play School....	W. H. Macpherson....	June 15	Sept. 1
Grand Rapids.....	Grand Rapids Kindergarten Training School.			
Do.....	Y. M. C. A. Summer School.....			
Kalamazoo.....	Western State Normal School.....	D. B. Waldo, LL. D..	June 28	Aug. 6
Lapeer.....	Lapeer Training School for Teachers of Backward Children.	H. A. Haynes, M. D..		
Marquette.....	Northern State Normal School.....	J. H. Kaye, M. A.....	June 28	Do.
Meauwataka.....	Forestry School (Michigan Agricultural College).	F. H. Sanford (East Lansing, Mich.).	June 20	Do.
Mount Pleasant.....	Central State Normal School.....	Charles T. Grawn, M. A.	June 30	Do.
Topinabee.....	University of Michigan Biological Station	Henry A. Cleason, Ph. D.	June 28	Aug. 20
Ypsilanti.....	Michigan State Normal College.....	Charles McKenny, LL. D.	...do....	Aug. 6
MINNESOTA.				
Aitkin.....	County Teachers' Training School..	J. E. Hogen.....	June 15	July 30
Albert Lea.....	do.....	C. C. Baker.....	June 22	July 23
Bagley.....	do.....	F. C. Miller, Ph. D....	June 28	Do.
Bemidji.....	do.....	W. P. Dyer.....	June 22	Do.
Buffalo.....	do.....	G. A. Foster.....		
Cambridge.....	do.....	C. E. Young.....	June 28	July 23
Crookston.....	Teacher's Training School (Northwest School of Agriculture).	C. G. Selvig.....	June 16	July 26
Duluth.....	State Normal School.....	E. W. Bohannon.....	June 15	July 24
Faribault.....	County Teachers' Training School..	John Munroe.....		
Do.....	Summer School for Blind Men.....			
Fergus Falls.....	County Teachers' Training School..	F. J. Sperry.....		
Grand Rapids.....	do.....	E. A. Freeman.....	June 28	July 30
Hendricks.....	do.....	C. W. G. Hyde.....		
Litchfield.....	do.....	S. E. Hargis.....	July 1	Aug. 1
Little Falls.....	do.....	H. E. White.....	...do....	Do.
Long Prairie.....	do.....	G. Holmquist.....		
Mankato.....	State Normal School.....	Charles H. Cooper.....	June 14	July 23
Milaca.....	County Teachers' Training School..	J. C. Marshall.....	(1)	
Minneapolis (920 Nicollet Ave.).	Ford Offices.....	James M. Ford.....	June 1	Sept. 1
Minneapolis (89 South 10th St.).	Handicraft Guild, School of Design, Handicraft, and Normal Art.			
Minneapolis (Public Library Bldg.).	Minneapolis School of Art.....	Robert Koehler.....	June 14	Aug. 14
Minneapolis (42 8th St. South).	Minneapolis School of Music, Oratory and Dramatic Art.	Wm. H. Pontius; Chas. M. Holt.	June 12	Aug. 8
Minneapolis.....	Minnesota College.....	Frank Nelson, L. H. D.	June 1	Aug. 1
Do.....	Summer School for Library Training (Minnesota Public Library Commission).	Clara F. Baldwin.....	June 16	July 25
Do.....	University of Minnesota.....	George F. James.....	June 14	July 23
Moorhead.....	State Normal School.....	Frank A. Weld.....	...do....	Do.
Mora.....	County Teachers' Training School..	W. N. Mandeville.....		
Morris.....	Teachers' Training School (West Central School of Agriculture).	C. H. Barnes.....	June 14	Do.
Redwood Falls.....	County Teachers' Training School..	J. L. Silvernale.....	(1)	
Roseau.....	do.....	P. A. Davis.....	July 1	Aug. 1
St. Cloud.....	State Normal School.....	W. A. Shoemaker.....	June 15	July 30
St. Paul.....	Globe Business College.....	J. O. Weaver.....	...do....	Sept. 1
Do.....	State Teachers' Training School and Summer School of Agriculture.	A. V. Storm.....	...do....	July 24
Shayton.....	County Teachers' Training School..	B. M. Cosgrove.....	(1)	
Thief River Falls.....	do.....	J. H. Hay.....	June 15	July 24
Wadena.....	do.....	W. C. Cobb.....	(1)	

1 No session.

XVII.—SUMMER SCHOOL DIRECTORS—Continued.

Location.	Summer school or affiliated institution.	Director or principal in 1914.	Probable date of session of 1915.	
			Opening.	Close.
MINNESOTA—contd.				
Waseca.....	do.....	L. H. Pryor.....	July 1	Aug. 1
Winona.....	State Normal School.....	G. E. Maxwell.....	June 14	July 25
Worthington.....	County Teachers' Training School.....	J. C. Davies.....	July 1	Aug. 1
MISSISSIPPI.				
Agricultural College.....	Mississippi A. & M. College.....	J. C. Robert.....	June 15	Aug. 1
Blue Mountain.....	State Summer Normal.....	W. T. Lowrey.....	June 7	July 2
Brookhaven.....	Brookhaven Summer Normal.....	Z. C. Hodges.....	.....	.....
Clinton.....	Clinton State Normal.....	J. W. Provine, Ph. D., LL. D.	June 8	July 3
Hattiesburg.....	Mississippi Normal College.....	Joe Cook.....	May 31	July 9
Newton.....	Newton Normal.....	A. S. McClendon.....	June 1	July 1
Perkinston.....	Coast Normal.....	J. A. Huff.....	July 15	Aug. 15
Shelby.....	Industrial - Agricultural College for Negroes.....	H. M. Thompson.....	Aug. 2	Aug. 27
University.....	University of Mississippi.....	J. C. Fant.....	June 8	July 18
Winona.....	Inter-County Normal.....	.....	.....	.....
MISSOURI.				
Cameron.....	Missouri Wesleyan College.....	A. B. Cope, M. A.....	June 7	Aug. 1
Cape Girardeau.....	State Normal School.....	W. S. Dearmont.....	do.....	Aug. 14
Columbia.....	Graduate School of Agriculture (Association of American Agricultural Colleges and Experiment Stations).	A. C. True (Agricultural Department, Washington, D. C.).	(1)	.....
Do.....	University of Missouri.....	Joseph D. Elliff.....	June 10	Aug. 7
Kansas City.....	Public Vacation Schools.....	W. Gidinghagen, W. H. Martin, G. Page.	June 14	July 23
Kirkville.....	State Normal School.....	John R. Kirk.....	May 26	Aug. 6
La Grange.....	La Grange College.....	J. T. Muir, LL. D.....	June 8	Aug. 14
Maryville.....	State Normal School.....	.....	.....	.....
St. Louis.....	Forest Park University School of Music.	E. R. Kroeger.....	June 1	Aug. 1
St. Louis (1402 S. Grand Ave.).	St. Louis University School of Medicine.	D. M. Shoemaker, M. D.	do.....	July 12
St. Louis.....	Vacation School for Children (Epworth Deaconess Home and Settlement).	Mary M. Tuttle.....	June 23	Aug. 1
Springfield.....	State Normal School.....	W. T. Carrington.....	May 27	Do.
Warrensburg.....	do.....	W. J. Hawkins, LL. D.	June 1	Aug. 7
Warrenton.....	Central Wesleyan College.....	Henry Vosholl, M. A.	June 7	Aug. 14
MONTANA.				
Bozeman.....	Gallatin County Summer School.....	Ida W. Davis.....	.....	.....
Do.....	Montana State College of Agriculture and Mechanic Arts.	J. H. Holst.....	June 7	July 16
Chinook.....	Summer School for Teachers.....	.....	Aug. 1	Aug. 30
Dillon.....	Montana State Normal College.....	J. E. Monroe.....	June 8	Aug. 27
Glen.....	University of Montana Biological Station.	Morton J. Elrod (Missoula, Mont.).	June 14	July 30
Glendive.....	County Teachers' Summer School.....	Mrs. H. K. Felt.....	.....	.....
Great Falls.....	Public Vacation School.....	S. D. Sargent.....	June 15	Aug. 8
Helena.....	Montana Wesleyan College.....	T. A. Bruner.....	.....	.....
Kalispell.....	Flathead County Summer School.....	May Trumper.....	July 15	Sept. 1
Missoula.....	University of Montana.....	William W. Kemp, Ph. D.	June 10	July 18
NEBRASKA.				
Alliance.....	State Junior Normal.....	Earl Cline.....	June 8	Aug. 1
Alma.....	do.....	Dell Gibson.....	June 6	July 30
Bellevue.....	Bellevue College.....	Wm. E. Nicholl.....	June 16	Aug. 8
Bethany.....	Cotner University.....	.....	.....	.....
Broken Bow.....	State Junior Normal.....	S. H. Martin.....	June 7	July 30
Chadron.....	State Normal School.....	Joseph Sparks.....	do.....	Do.
Collegeview.....	Union College.....	Harvey A. Morrison, M. A.	June 1	July 28
Fremont.....	Fremont College.....	.....	.....	.....
Kearney.....	State Normal School.....	M. R. Snodgrass.....	.....	.....
Lincoln.....	Teachers College High School.....	Charles W. Taylor.....	June 9	Aug. 1
Do.....	University of Nebraska.....	Samuel Avery, Ph. D., LL. D.	June 7	July 30
McCook.....	State Junior Normal.....	W. T. Davis.....	.....	.....
North Platte.....	do.....	Wilson Tout.....	June 7	July 30

¹ No session.

XVII.—SUMMER SCHOOL DIRECTORS—Continued.

Location.	Summer school or affiliated institution.	Director or principal in 1914.	Probable date of session of 1915.	
			Opening.	Close.
NEBRASKA—contd.				
Omaha.....	Creighton University.....	Paul L. Martin.....	June 19	Aug. 2
Do.....	University of Omaha.....	Selma Anderson.....	June 20	Aug. 15
O'Neill.....	State Junior Normal.....	C. N. Walton.....	June 7	July 31
Peru.....	State Normal School.....	D. W. Hayes.....	do.....	Do.
University Place.....	Nebraska Wesleyan University.....	Frank Howard, Ph. D.....	do.....	Do.
Do.....	Public Vacation School.....	L. Frisbie.....	do.....	Do.
Valentine.....	State Junior Normal.....	W. C. Green.....	do.....	Do.
Wayne.....	State Normal School.....	U. S. Conn.....	June 6	July 30
York.....	York College.....	M. O. McLaughlin.....	June 10	Aug. 5
NEW HAMPSHIRE.				
Ashland.....	Camp Algonquin for Boys.....	Edwin De Meritte (815 Boylston St., Boston, Mass.)	June 24	Sept. 2
Do.....	Winnetaska Summer School.....	John B. May, M. D....	June 30	Sept. 1
Do.....	Winona Fields Camp for Girls.....	Elizabeth M. Fessenden; Mary R. Lakeman, M. D. (Salem, Mass).	July 1	Do.
Bristol.....	Pasquaney Nature Club.....	Mrs. Laura H. Hassan.....	do.....	Do.
Enfield.....	Camp Rockland (Rockland Military Academy).			
Francestown.....	Camp Fairweather for Girls.....	Matilda D. Fairweather.	July 1	Aug. 30
Hanover.....	Dartmouth College.....	W. V. Bingham, Ph. D.	July 5	Aug. 14
Holderness.....	Camp Wachusett.....	Rev. Lorin Webster, L. H. D.	June 28	Aug. 30
Jackson.....	Thorn Mountain Tutoring School...	George A. Bushee...	June 30	Do.
Meredith.....	Camp Anawan.....	Nellie S. Winchester (Lawrence, Mass.).	July 1	Sept. 1
Pike.....	Camp Moosilauke.....	Virgil Prettyman, Ph. D. (Horace Mann School, New York, N. Y.).	June 24	Aug. 26
Plymouth.....	State Normal School.....	Ernest L. Silver.....	July 1	Sept. 1
South Chatham.....	Chatham Woods Camp.....	Katharine L. Bishop.....	do.....	Do.
Do.....	Hill's (Mrs.) Summer School of Cookery.	Janet M. Hill.....	July 9	Aug. 4
Tamworth.....	Camp Chocorua (for boys).....	S. G. Davidson, Lit. D	June 25	Sept. 3
Do.....	Camp Larcom (for girls).....	do.....	do.....	Do.
West Ossipee.....	Camp Wellesley.....	Edw. A. Benner (Wellesley, Mass.).	July 5	Aug. 31
NEW JERSEY.				
Allenhurst.....	Rand Summer School.....	Edwin W. Rand, M. A	June 15	Sept. 20
Bloomfield.....	Silver Lake Summer School.....	Henry G. Lym.....	July 5	Aug. 13
Do.....	Snell Summer Art Class.....	Maurice C. Boyd.....	June 18	Sept. 8
Bordentown.....	Camp Minne-wawa (Algonquin Park, Ontario).	W. L. Wise.....	July 7	Sept. 1
Cape May.....	Cape May School of Agriculture, Industrial Art and Science.			
Collingswood.....	State Summer School.....	T. D. Sensor, M. A....	June 28	Aug. 14
Hoboken.....	Stevens Institute of Technology...	A. Riesenberger.....	Aug. 16	Sept. 11
Newark.....	City Public Schools.....	A. B. Poland.....	July 12	Aug. 20
Newark (17 Academy St.).	Ronish School.....	A. W. H. Ronish.....		
New Brunswick.....	Rutgers College.....	A. J. Inglis, Ph. D....	June 30	Aug. 8
Ocean City.....	State Summer School.....	T. D. Sensor, M. A....	June 28	July 31
Phillipsburg.....	do.....	do.....	do.....	Aug. 14
Princeton.....	College Summer School.....	Albert Gross.....	July 6	Sept. 25
Princeton (15 University Place).	Princeton Summer School.....	C. R. Morey; A. M. Hildebittel; H. D. Austin.	July 10	Sept. 20
Princeton.....	Princeton Theological Seminary....	B. B. Warfield, D. D..	June 1	June 14
Do.....	Princeton Tutors' Association.....	Frank Fritts, Ph. D....	Aug. 1	Sept. 25
Do.....	University Summer School.....	Garret S. Voorhees....	July 14	Sept. 18
Vineland.....	Training School for Teachers of Backward Children.	E. R. Johnstone.....	July 12	Aug. 21
NEW MEXICO.				
Albuquerque.....	University of New Mexico.....		May 25	July 23
Clovis.....	Curry County Summer Normal....	Frank Carroon.....	July 15	Aug. 8
Las Vegas.....	New Mexico Normal University....	Frank H. H. Roberts...	June 1	July 22
Do.....	San Miguel Teachers' Normal Institute.			

XVII.—SUMMER SCHOOL DIRECTORS—Continued.

Location.	Summer school or affiliated institution.	Director or principal in 1914.	Probable date of session of 1915.	
			Opening.	Close.
NEW MEXICO—contd.				
Santa Fe.....	New Mexico Institute of Science and Education.	William H. Pope.....	Aug. 4	Aug. 30
Silver City.....	New Mexico Normal School.....	C. M. Light, Ph. D...	June 1	July 23
NEW YORK.				
Albany.....	State Library School.....	J. I. Wyer, Jr.....	June 2	July 14
Auburn.....	Auburn Summer School of Theology	G. B. Stewart, D. D., LL. D.	July 5	July 24
Do.....	Summer School for Christian Workers.	.....do.....	July 26	Aug. 7
Do.....	Titus Normal School of Dance.....	Pauline L. Titus.....	July 1	July 31
Brooklyn.....	Adelphi College.....	A. G. Fradenburgh....	July 5	Aug. 13
Do.....	Bedford Y. M. C. A. Vacation School	Francis P. Lamphear..	July 7	Aug. 22
Do.....	Central Y. M. C. A. Summer School.	M. S. Tuttle.....	July 12	Aug. 27
Buffalo.....	Public Vacation Schools.....	G. E. Smith.....	July 1	Aug. 1
Catskill.....	Kyle Camp.....	Paul Kyle (Irvington.. N. Y.).	...do....	Sept. 1
Chautauqua.....	Chautauqua Institution.....	Percy H. Boynton....	July 3	Aug. 13
Cliff Haven.....	Catholic Summer School of America.	Rev. John J. Donlan..	June 28	Sept. 3
Clinton.....	Hamilton College Summer School of English.	Calvin L. Lewis.....	July 5	Do.
Cold Spring Harbor....	Brooklyn Institute of Arts and Sciences, Biological Laboratory.	Chas. B. Davenport, Ph. D.	June 30	Aug. 11
Corinth (R. F. D.)....	Camp Gahada.....	William B. Efner (Schenectady, N. Y.).	June 28	Sept. 1
Cornwall-on-Hudson...	New York Military Academy.....	S. C. Jones.....	June 21	Aug. 27
Cortland.....	Cortland Summer School.....	Luke J. McEvoy.....	July 1	Aug. 6
Diamond Point.....	Camp Wabanaki for Girls.....	.....	.....	.....
Highland.....	Raymond Riordon School of Mental Measurement.	Raymond Riordon....	.....	.....
Ithaca.....	Camp Otter (Dorset, Ontario, Canada).	C. V. P. Young.....	July 1	Aug. 28
Do.....	Cornell University.....	George P. Bristol.....	July 5	Aug. 13
Lake Pleasant.....	Camp Setag.....	Ada M. Gates (618 Auburn Ave., Buffalo, N. Y.).	July 1	Sept. 1
Monroe.....	Mackenzie School.....	James C. Mackenzie...	July 8	Sept. 8
New Rochelle.....	College of New Rochelle.....	M. M. Ignatius, M. A..	June 30	Aug. 8
New York (Amer. Fine Arts Bldg.).	Art Students' League.....	.....	.....	.....
New York (541 Lexington Ave.).	Bible Teachers' Training School....	John A. Wood.....	June 22	July 31
New York (241 West 75th St.).	Brown School of Tutoring.....	Frederic L. Brown....	July 6	Sept. 20
New York (7 West 42d St.).	Chalif Normal School of Dancing...	Louis H. Chalif.....	May 31	July 23
New York.....	Columbia University.....	James C. Egbert.....	July 6	Aug. 13
New York (7 West 42d St.).	Gilbert Normal School of Dancing..	Susan H. Gilman.....	June 1	July 15
New York (74 West 124th St.).	Harlem Y. W. C. A.....	Alice L. Lennon.....	...do....	Aug. 15
New York (303 Fifth Ave.).	International Academy of Designing and Cutting.	Leo Ornstein.....	June 2	Aug. 31
New York (501 Fifth Ave.).	Massee Summer School.....	W. W. Massee.....	June 5	Sept. 24
New York (109th St. and Amsterdam Ave.).	National Academy of Design.....	George W. Maynard, N. A.	June 1	Aug. 28
New York (600 Lexington Ave.).	National Training School (Y. W. C. A.).	Elizabeth Wilson, M. A.	July 6	Aug. 17
New York (105 East 22d St.).	New York School of Philanthropy..	Edward Devine.....	.....	.....
New York.....	New York University.....	James E. Lough.....	July 1	Aug. 12
Do.....	Normal College, City of New York..	.....	.....	.....
New York (Aeolian Hall).	School of Accompanying.....	Mrs. Marshall E. Stewart.	June 16	Aug. 16
Port Henry.....	Repton Camp.....	O. C. Roach (Tarrytown, N. Y.).	June 30	Sept. 1
Rochester.....	Mechanics Institute.....	Carleton B. Gibson....	June 28	Aug. 6
Round Lake.....	Round Lake Summer Institute....	Rev. Wm. H. Hughes..	July 11	July 20
Saranac Lake.....	St. Regis Camp for Boys.....	P. R. Langdon, M. D., LL. D.	July 1	Sept. 7
Shady.....	Summer School of Figure Painting.	Dewing Woodward...	June 1	Sept. 30
Silver Bay.....	Black Elephant Camp.....	Kate B. Wallace (Wellesley, Mass.).	June 25	Sept. 27
Do.....	Eastern Association School (Y. M. C. A.).	Thornton B. Penfield. Ph. D.	July 30	Aug. 28

XVII.—SUMMER SCHOOL DIRECTORS—Continued.

Location.	Summer school or affiliated institution.	Director or principal in 1914.	Probable date of session of 1915.	
			Opening.	Close.
NEW YORK—contd.				
Syracuse.....	Syracuse University.....	Edgar C. Morris, M. A.	July 5	Aug. 13
Troy.....	Rensselaer Polytechnic Institute.....			
Valcour.....	Camp Penn.....	Charles K. Taylor, M. A.	June 22	Aug. 27
White Lake.....	Kauneonga Camp for Boys.....	W. S. Williams.....	July 1	Sept. 1
Willsboro.....	Camp Pok-O'-Moonshine (Peekskill Academy).	Charles A. Robinson, Ph. D.	do	Aug. 28
Woodland.....	Camp Wake Robin.....	H. W. Little.....	do	Do.
Woodstock.....	Summer School of Landscape Painting (Art Students' League of New York).	Walter Galtz.....	June 1	Nov. 1
NORTH CAROLINA.				
Asheville.....	School of Expression (Boston, Mass.)	S. S. Curry, Ph. D....	June 27	July 25
Blue Ridge.....	Boys' Camp.....	Henry G. Hart.....	July 23	Aug. 5
Do.....	Employed Officers of Y. M. C. A....	R. H. King.....	July 7	July 21
Do.....	Missionary Education.....	Harry S. Myers.....	June 25	July 4
Do.....	Southern Student Conference of Y. M. C. A.	W. D. Weatherford (Nashville, Tenn.).	June 15	June 24
Do.....	Southern Student Secretaries, Y. M. C. A.	do.....	June 29	July 22
Do.....	Southern Summer School of Social Service and Christian Workers.	do.....	Aug. 4	Aug. 30
Do.....	Y. W. C. A. Summer School.....	Louise W. Brooks.....	June 4 July 21	June 14 July 31
Boone.....	Appalachian Training School.....	B. B. Dougherty.....		
Chapel Hill.....	University of North Carolina.....	N. W. Walker.....	June 15	July 30
Cullowhee.....	Cullowhee Normal and Industrial School.	A. C. Reynolds.....	do	Sept. 1
Durham.....	National Religious Training School.		June 18	Aug. 27
Greensboro.....	North Carolina A. and M. College for the Colored Race.	D. J. Jordan.....	July 5	Aug. 14
Greenville.....	East Carolina Teachers' Training School.	Robert H. Wright.....	June 15	Aug. 7
Wake Forest.....	Wake Forest College School of Law.	N. Y. Gulley.....	June 7	Aug. 30
NORTH DAKOTA.				
Agricultural College....	Cass and Ransom Counties Teachers' Training School.	Alfred H. Parrott.....	June 14	July 23
Do.....	North Dakota Agricultural College..	Arland D. Weeks.....	do	Do.
Ellendale.....	State Normal and Industrial School.	Willis E. Johnson.....	do	Do.
Grand Forks.....	Public Vacation School.....	P. H. Lehman.....		
Mayville.....	State Normal School.....	Thomas A. Hillyer....	July 1	Aug. 11
University.....	University of North Dakota (College Section.)	A. J. Ladd, Ph. D....	June 21	July 31
Do.....	University of North Dakota (Elementary Section).	C. C. Schmidt.....	do	Do.
Valley City.....	State Normal School.....	George A. McFarland..	June 29	Aug. 11
Wahpeton.....	Training School for Teachers (State School of Science).	R. M. Black.....	June 15	July 22
OHIO.				
Ada.....	Ohio Northern University.....	A. E. Smith, D. D., Ph. D.	June 1	Aug. 20
Alliance.....	Mount Union—Scioto College.....	William H. McMaster, M. A., D. D.	June 21	July 30
Athens.....	Ohio University and State Normal College.	Alston Ellis, Ph. D., LL. D.	June 19	Do.
Bluffton.....	Bluffton College.....	N. E. Byers, M. A....	June 21	Do.
Cedar Point.....	Lake Laboratory (Ohio State University).	Herbert Osborn.....	do	Do.
Cincinnati.....	Art Academy of Cincinnati.....	J. H. Gest.....	June 14	Aug. 20
Do.....	Ohio Mechanics Institute.....	John K. Shearer, M. A.	June 23	Aug. 6
Columbus.....	Ohio State University.....	K. D. Swartzel.....	June 22	Aug. 14
Do.....	Y. M. C. A. Summer School.....	E. L. Mahaffey.....	June 30	Aug. 7
Dayton.....	Public Vacation School.....	Wm. Prinz.....		
Defiance.....	Defiance College.....	P. W. McReynolds...	June 14	Aug. 6
Granville.....	Denison University.....	C. E. Goodell.....	June 21	July 30
Greenville.....	Commercial-Normal College.....	Clarence Balthaser...	June 1	July 25
Hamilton.....	Y. M. C. A. Summer School.....	Charles H. Lake.....	June 23	Aug. 8
Kent.....	State Normal School.....	John E. McGilvrey...	May 10	July 30
Kingsville.....	Camp Wyndcroft.....	Mrs. Artemas B. Luce (Glen Ridge, N. J.).	July 1	Aug. 27
Lebanon.....	Lebanon University.....	Arthur James, M. A...	June 14	Aug. 6
Lorain.....	Y. M. C. A. Summer School.....	C. F. Kelser.....	June 15	Aug. 15
Mount Vernon.....	Mount Vernon Academy.....	E. G. Salisbury.....	June 1	July 15
New Concord.....	Muskingum College.....	J. G. Lowery.....	June 21	Aug. 13

XVII.—SUMMER SCHOOL DIRECTORS—Continued.

Location.	Summer school or affiliated institution.	Director or principal in 1914.	Probable date of session of 1915.	
			Oponing.	Close.
OHIO—continued.				
Oberlin.....	Oberlin College.....	S. F. MacLennan.....	June 18	Aug. 6
Oxford.....	Miami University (two terms).....	H. C. Minnich.....	June 14	Sept. 3
Rio Grande.....	Rio Grande College.....	Simeon H. Bing.....	June 21	July 30
Springfield.....	Wittenberg College.....	T. Bruce Birch.....	June 28	Aug. 6
Tiffin.....	Heidelberg University.....	George W. Good.....	June 21	July 30
Westerville.....	Otterbein University.....	Rudolph H. Wagoner, M. A.	do.....	Do.
West Lafayette.....	West Lafayette College.....	A. F. Hess, Ph. D....	June 17	July 26
Wooster.....	Wooster University.....			
Yellow Springs.....	Antioch College.....	Wm. M. Dawson, M. A.	June 15	Aug. 1
OKLAHOMA.				
Ada.....	East Central State Normal School..	Charles W. Briles.....	May 25	July 3
Alva.....	Northwestern State Normal School..	Grant B. Grumbine...	May 27	Aug. 1
Durant.....	Southeastern State Normal School..	W. C. Canterbury.....	May 24	July 30
Edmond.....	Central State Normal School.....	Charles Evans.....	May 27	Aug. 1
Norman.....	University of Oklahoma.....	W. W. Phelan, Ph. D.	June 16	Aug. 8
Stillwater.....	Oklahoma Agricultural and Mechanical College.	John H. Bowers, Ph. D.	May 27	July 31
Tahlequah.....	Northeastern State Normal School.*	G. W. Gable.....	May 29	Do.
Weatherford.....	Southwestern State Normal School..	U. J. Griffith.....	May 26	Do.
OREGON.				
Corvallis.....	Boys Camp, Oregon Agricultural College.	E. D. Ressler.....	June 16	June 29
Do.....	Oregon Agricultural College.....	do.....	June 14	July 23
Eugene.....	University of Oregon.....	Joseph Shafer.....	June 28	Aug. 6
Gladstone.....	Willamette Valley Chautauqua....	Harvey E. Cross (Oregon City, Oreg.).	July 7	July 19
Joseph.....	Willamette University.....	James T. Matthew.....	(1)	
Monmouth.....	Oregon Normal School.....	J. H. Ackerman.....	June 21	July 30
Portland.....	Public Vacation Schools.....	L. R. Alderman.....	June 28	Aug. 6
Salem.....	Capital Normal and Industrial School.	J. J. Kraps.....	Apr. 1	Aug. 10
PENNSYLVANIA.				
Beaver Falls.....	Geneva College.....	W. E. Rosenberger, M. A.	June 16	Aug. 1
Cheyney.....	Cheyney Summer School for Teachers. ¹	Leslie P. Hill.....	July 1	Aug. 12
Collegeville.....	Ursinus College.....	W. A. Kline.....	June 22	Aug. 2
Concordville.....	Maplewood Summer Camp.....	J. Chauncey Shortlidge.		
Fort Washington.....	Darby School of Painting.....	Hugh H. Breckenridge.	June 8	July 31
Grove City.....	Grove City College.....	A. T. Ormond, Ph. D., LL. D.	June 22	Aug. 26
Huntingdon.....	Juniata College.....	Charles C. Ellis, Ph. D.	June 21	July 30
Lancaster.....	Franklin and Marshall Academy...	T. G. Helm, M. A.; E. M. Hartman, M. A.	June 14	July 23
Lebanon.....	Y. M. C. A. Summer School.....			
Meadville.....	Institute for Religious Education (Meadville Theological Seminary).	Wm. I. Lawrance.....	June 21	July 2
Millersville.....	State Normal School.....	P. M. Harbald.....	June 28	Aug. 6
Mount Gretna.....	Pennsylvania Chautauqua Summer School for Teachers.	W. S. Steele, M. A....	July 1	July 30
Muncy.....	Lycoming County Normal School..	S. B. Dunlap.....	June 28	Aug. 27
Myerstown.....	Albright College.....	J. T. Dunlap.....	June 21	July 30
Philadelphia.....	Central Educational Institute (Y. M. C. A.).	C. J. Walters.....	June 23	Aug. 3
Philadelphia (1730 Chestnut St.).	Neff College.....	Silas F. Neff, Ph. D...	June 15	July 30
Philadelphia (917 Chestnut St.).	Peirce School.....	L. B. Moffett.....	June 28	Aug. 6
Philadelphia (1711 Green St.).	Pennsylvania Orthopaedic Institute and School of Mechanotherapy.	Max J. Walter, M. D..	July 6	Nov. 5
Philadelphia (1107 N. 41st St.).	School of Sloyd.....			
Philadelphia.....	University of Pennsylvania.....	J. P. W. Crawford....	July 6	Aug. 14
Pittsburgh (Mount Oliver).	King's School of Oratory.....	Byron W. King, Ph. D.	June 16	July 25

¹ No session.² Negro school.

XVII.—SUMMER SCHOOL DIRECTORS—(Continued.)

Location.	Summer school or affiliated institution.	Director or principal in 1914.	Probable date of session of 1915.	
			Opening.	Close.
PENNSYLVANIA—contd.				
Pittsburgh.....	University of Pittsburgh.....	S. B. McCormick, LL. D.	June 28	Aug. 21
Pocono Pines.....	Pine Tree Camp.....	Blanch D. Price (905 South 47th St., Philadelphia, Pa.).	June 30	Sept. 1
Scranton.....	Y. M. C. A. Summer School.....	.....	July 1	Aug. 15
Selinsgrove.....	Susquehanna University.....	Edwin M. Brungart, M. A.	June 16	Aug. 6
South Bethlehem.....	Lehigh University.....	Henry S. Drinker....	July 21	
State College.....	Pennsylvania State College.....	Edwin R. Smith.....	June 28	Aug. 6
Do.....	Summer School for Library Training.	Robert P. Bliss.....	...do....	Aug. 8
Swarthmore.....	Swarthmore Preparatory School...	A. H. Tomlinson.....	June 20	Aug. 20
Waynesburg.....	Waynesburg College.....	H. D. Patton, M. A.	June 22	Aug. 3
West Chester.....	State Normal School.....	Addison L. Jones....	June 21	July 23
RHODE ISLAND.				
Providence.....	Y. M. C. A. Summer School.....	J. G. Olmstead; and M. D. Carroll.	July 7	Aug. 22
SOUTH CAROLINA.				
Columbia.....	University of South Carolina.....	A. C. Moore and J. E. Swearingen.	June 23	July 17
Orangeburg.....	State A. and M. College ¹	R. S. Wilkinson, Ph. D.	June 28	July 23
Rock Hill.....	Winthrop Normal and Industrial College.	D. B. Johnson.....	June 16	Do.
Spartanburg.....	Wofford College Fitting School.....	A. W. Horton.....	June 25	Aug. 15
SOUTH DAKOTA.				
Aberdeen.....	Northern Normal and Industrial School.	G. W. Nash.....	June 7	July 17
Brookings.....	State College of Agriculture and Mechanic Arts.	E. D. Stivers.....	June 14	July 23
Huron.....	Huron College.....	C. W. Hochstetler, M. A.	June 15	Do.
Madison.....	State Normal School.....	John W. Heston, LL. D.	...do....	July 25
Mitchell.....	Dakota Wesleyan University.....	Herbert Patterson, Ph. D.	June 7	July 16
Redfield.....	Redfield College.....	E. A. Fath.....	June 14	(July 24 Aug. 13)
Yankton.....	Yankton College.....	George H. Scott.....	...do....	July 23
TENNESSEE.				
Cumberland Gap.....	Lincoln Memorial University.....	T. B. Ford.....	May 10	Aug. 30
Jackson.....	State Institute for Teachers.....	R. L. Bynum.....	June 7	July 2
Johnson City.....	East Tennessee State Normal School.	Sidney G. Gilbreath...	June 9	July 18
Knoxville.....	Summer School of the South (University of Tennessee).	Brown Ayres, Ph. D., LL. D.	June 22	July 3
Memphis.....	West Tennessee State Normal School.	J. W. Brister.....	June 7	July 16
Murfreesboro.....	Middle Tennessee State Normal School.	R. L. Jones, M. A....	June 7	July 17
Nashville.....	(George Peabody College for Teachers.	Carter Alexander, Ph. D.	(June 17 July 24)	July 23 Aug. 28
Walling.....	Webb Summer School.....	W. R. Webb.....	June 1	Aug. 15
TEXAS.				
Ableene.....	Simmons College.....	Julius F. McDonald, M. A.	June 7	Aug. 25
Alpine.....	Summer Normal.....	A. W. Evans.....	June 10	July 20
Athens.....	Summer Normal ¹	T. Harris.....	June 1	July 15
Atlanta.....	do.....	T. P. Fowler.....	June 14	July 31
Austin.....	University of Texas.....	W. S. Sutton, LL. D.	June 12	July 29
Beaumont.....	Summer Normal.....	P. I. Hunter.....	June 7	July 30
Belton.....	Baylor College.....	Peyton JacobsP.....	June 3	July 18

¹ Negro school.

XVII.—SUMMER SCHOOL DIRECTORS—Continued.

Location.	Summer school or affiliated institution.	Director or principal in 1914.	Probable date of session of 1915.	
			Opening.	Close.
TEXAS—continued.				
Brenham.....	Blinn Summer Normal.....	J. L. Neu.....	June 7	July 17
Brownsville.....	Summer Normal.....	C. E. Thomas.....	June 15	Aug. 1
Brownwood.....	do.....	W. L. Hughes.....	June 7	July 31
Bryan.....	Summer Normal ¹	P. Landry.....	June 22	Do.
Cameron.....	Summer Normal.....	John B. Poteet.....	June 15	Do.
Canyon.....	West Texas State Normal College.....	R. B. Cousins.....	June 2	Aug. 22
Cisco.....	Britton's Training School.....	.....	.....	.....
Clarendon.....	Summer Normal.....	W. H. Woodley.....	June 9	July 16
Clarksville.....	do.....	Chas. J. Nisile.....	do.....	Do.
Do.....	Summer Normal ¹	T. W. Pratt.....	do.....	Do.
Cleburne.....	Summer Normal.....	S. E. Watson.....	June 8	July 17
Comanche.....	do.....	R. F. Holloway.....	June 1	July 15
Commerce.....	East Texas Normal College.....	W. L. Mayo.....	June 7	Aug. 1
Conroe.....	Summer Normal ¹	A. E. Holland.....	June 6	July 15
Crockett.....	Summer Normal.....	N. A. Gant.....	June 1	July 20
Dallas.....	Summer Normal ¹	W. B. Turner.....	June 15	July 31
Denton.....	College of Industrial Arts.....	M. L. Williams.....	June 1	July 17
Do.....	North Texas State Normal College.....	W. H. Bruce.....	do.....	July 31
Fort Worth.....	Summer Normal ¹	I. M. Terrell.....	June 8	July 17
Do.....	Texas Christian University.....	.....	.....	.....
Fowlerton.....	Summer Normal.....	E. E. Bagwell.....	June 1	Aug. 1
Gatesville.....	do.....	W. S. Dabney.....	do.....	Do.
Georgetown.....	Southwestern University.....	Frank Seay.....	June 16	July 31
Giddings.....	Summer Normal ¹	A. M. Mason.....	June 7	July 16
Greenville.....	Summer Normal.....	L. C. Gee, M. A.....	June 7	July 16
Groveton.....	Summer Normal ¹	P. Abner.....	June 15	Aug. 1
Henrietta.....	Summer Normal.....	C. F. Walker.....	June 1	July 18
Hondo.....	Summer Normal ¹	F. W. Brown.....	do.....	Do.
Houston.....	Summer Normal.....	Charles A. Jameson.....	do.....	July 15
Do.....	Y. M. C. A. Summer School.....	E. L. Jones.....	do.....	July 24
Huntsville.....	Sam Houston State Normal Institute.	H. F. Estill.....	June 4	July 30
Jasper.....	Summer Normal ¹	C. A. Barrett.....	June 14	July 31
Kerrville.....	Summer Normal.....	A. R. Thomas.....	May 20	July 20
La Grange.....	Summer Normal ¹	G. A. Randolph.....	June 7	July 30
McKinney.....	Summer Normal.....	T. J. Taylor.....	June 14	Do.
Marshall.....	Summer Normal ¹	H. B. Pemberton.....	June 7	Do.
Meridian.....	do.....	A. D. Roach.....	June 15	Do.
Mexia.....	Summer Normal ¹	L. G. McDonald.....	June 20	Aug. 1
Mineola.....	Summer Normal.....	L. W. Rogers.....	June 1	July 18
Murchison.....	do.....	Elias Core.....	June 15	July 15
Nacogdoches.....	Summer Normal ¹	M. W. Harris.....	June 10	July 20
Palacios.....	Summer Normal.....	W. A. Holland.....	June 15	July 31
Palestine.....	Summer Normal ¹	C. F. Carr.....	June 20	Aug. 1
Pittsburg.....	do.....	W. A. Peete.....	June 15	July 31
Port Lavaca.....	Summer Normal.....	J. W. Hamlett.....	June 8	July 16
Sabinal.....	do.....	T. L. Williams.....	.....	.....
San Angelo.....	do.....	Felix E. Smith.....	.....	.....
San Antonio.....	Our Lady of the Lake College.....	Mother M. Florence.....	July 1	Aug. 1
Do.....	Summer Normal.....	C. A. Arnold.....	June 15	Do.
San Marcos.....	Southwest Texas State Normal School.	C. E. Evans.....	June 1	July 31
Seguin.....	Summer Normal ¹	S. W. Thompson.....	June 8	July 15
Seymour.....	Summer Normal.....	W. E. Edelen, M. A.....	do.....	July 31
Sherman.....	do.....	J. C. Pyle.....	do.....	Do.
Stamford.....	Stamford College.....	.....	.....	.....
Stephenville.....	John Tarleton College.....	J. F. Cox, M. A.....	May 31	July 16
Tahoka.....	South Plains Summer Normal College.	E. F. Puryear.....	June 17	July 27
Teague.....	Summer Normal.....	David R. Hibbetts.....	June 1	July 31
Do.....	Summer Normal ¹	W. M. Caldwell.....	.....	.....
Tehuacana.....	Summer Normal.....	J. J. Bates.....	June 5	July 30
Texarkana.....	do.....	O. L. Dunaway.....	June 1	July 20
Do.....	Summer Normal ¹	J. A. Terry.....	June 14	Aug. 28
Waco.....	Baylor University.....	S. P. Brooks, LL. D.....	do.....	Sept. 3
Do.....	Summer Normal ¹	W. T. Smith.....	June 20	July 30
Waelder.....	do.....	W. M. Lamkin.....	June 6	July 18
Waxahachie.....	Trinity University.....	S. H. Whitley.....	June 14	July 30
Weatherford.....	Summer Normal.....	C. E. Farmer.....	June 7	Aug. 30
Yoakum.....	do.....	C. A. Peterson.....	.....	.....

¹ Negro school.

XVII.—SUMMER SCHOOL DIRECTORS--Continued.

Location.	Summer school or affiliated institution.	Director or principal in 1914.	Probable date of session of 1915.	
			Opening.	Close.
UTAH.				
Logan.....	Agricultural College of Utah.....	James H. Linford.....	June 7	July 17
Provo.....	Brigham Young University.....	G. H. Brimhall.....	do.....	Aug. 27
Salt Lake City.....	State Library Summer School.....	Mary E. Downey.....	May 15	July 1
Do.....	University of Utah.....	Milton Bennion.....	June 7	July 16
Do.....	Y. M. C. A. Summer School.....	John H. Coombs.....	June 14	July 26
VERMONT.				
Burlington.....	School of expression (Boston, Mass.)	S. S. Curry, Ph. D....	July 6	Aug. 14
Do.....	Students' Military Instruction Camp.	Capt. Oliver Edwards.....		
Do.....	University of Vermont.....	J. F. Messenger, Ph. D.	July 5	Aug. 13
Castleton.....	State Normal School.....	Charles A. Adams.....	do.....	July 24
Johnson.....	do.....	A. G. Peaks.....	June 24	July 16
Lake Dunmore.....	Keewaydin Camps.....	A. S. Gregg Clarke.....	June 30	Sept. 1
Middlebury.....	Middlebury College.....	Raymond McFarland.....	July 30	Aug. 6
Milton.....	Camp Winnisquam.....	Wm. S. Spencer.....	June 27	Aug. 27
Northfield.....	{Norwich University Schools for	{Arthur E. Winslow...{	{June 28	{July 24
	{Engineers (two terms).		{Aug. 10	{Sept. 7
Poultney.....	Kamp Klamesha Tutoring School...	Frank J. Davey, M.A., M. D.	June 23	Sept. 3
St. Albans Bay.....	Kamp Kill Kare.....	Ralph F. Perry.....	July 1	Sept. 1
South Fairlee.....	Camp Quinbeck.....	F. L. Bryant (Erasmus Hall High School, Brooklyn, N. Y.).	do.....	Do.
South Strafford.....	Camp Ken-Jockeytee.....	J. W. Tyson.....	do.....	Do.
Thetford.....	Camp Hanoum for Girls.....	C. H. Farnsworth.....	do.....	Do.
Wells River.....	Camp Farwell.....	Julia H. Farwell (Tarrytown, N. Y.).	do.....	Do.
VIRGINIA.				
Bristol.....	Nixon Business College.....	C. H. Nixon.....	June 1	Sept. 1
Cambria.....	Christiansburg State Normal Institute. ¹	E. A. Long.....	June 30	July 31
Charlottesville.....	University of Virginia.....	Charles G. Maphis.....	June 22	Aug. 5
Chase City.....	State Summer Normal.....	C. H. Friend.....	June 21	July 20
Covington.....	do.....	Joseph H. Saunders.....	June 25	July 25
Dublin.....	College of William and Mary.....	John W. Ritchie.....	June 20	Aug. 18
East Radford.....	State Normal School.....	J. P. McConnell.....	June 14	Aug. 28
Emory.....	Emory and Henry College.....	Raymond Bellamy.....	June 9	Aug. 11
Do.....	State Summer Normal.....	F. B. Fitzpatrick.....	June 22	July 23
Farmville.....	do.....	J. L. Jarman, LL. D.....	do.....	Do.
Fredericksburg.....	do.....	E. H. Russell.....	do.....	Do.
Galax.....	do.....	J. A. Livesay.....	June 20	Do.
Hampton.....	Hampton Normal and Agricultural Institute. ¹	George P. Phenix.....	June 15	July 13
Harrisonburg.....	State Normal and Industrial School.	Julian A. Burruss.....	June 14	Aug. 30
Ivy Depot.....	Blue Ridge Camp.....	R. W. Wood, M. A....	July 2	Aug. 27
Lawrenceville.....	St. Paul Normal and Industrial School. ¹	Z. M. Pollard.....	June 15	July 15
Luray.....	State Summer Normal.....	J. H. Booton.....	June 23	July 23
Manassas.....	State Summer Normal ¹	Wm. J. Decatur.....	June 24	July 21
Martinsville.....	State Summer Normal.....	N. P. Painter.....	do.....	July 25
Norfolk.....	do.....	James Hurst.....	June 25	July 23
Petersburg.....	Virginia Normal and Industrial Institute. ¹			
Richmond.....	Richmond City Normal School.....	E. E. Smith.....	June 26	Aug. 3
Do.....	Virginia Union University ¹	George R. Hovey, M. A., D. D.	June 21	July 30
WASHINGTON.				
Bellingham.....	State Normal School.....	Frank Deerwester.....	June 7	July 30
Centralia.....	Centralia Summer Normal.....	J. M. Layhue.....	June 15	July 23
Charleston.....	Camp Shelbanks for Girls.....	Mary L. Hard (833 34th Ave., North, Seattle, Wash.).	July 1	Sept. 1

¹ Negro school.

XVII.—SUMMER SCHOOL DIRECTORS—Continued.

Location.	Summer school or affiliated institution.	Director or principal in 1914.	Probable date of session of 1915.	
			Opening.	Close.
WASHINGTON—contd.				
Cheney.....	State Normal School.....	Julian E. Buchanan...	June 1	July 30
Ellensburg.....	do.....	J. H. Morgan.....	June 7	Do.
Friday Harbor.....	Puget Sound Marine Station.....	T. C. Frye.....	June 23	Aug. 2
North Yakima.....	Y. M. C. A. Summer School.....	W. G. McMorris.....	July 5	Aug. 13
Pullman.....	Washington State College.....	Alvin E. Evans.....	June 13	Aug. 27
Puyallup.....	Summer School of Agriculture for Teachers.	Frank O. Kreager.....	June 14	July 24
Seattle.....	Northwest Summer Normal.....	Charles Fagan.....	July 12	Aug. 20
Do.....	University of Washington.....	Frederick E. Bolton...	June 23	Aug. 1
Do.....	Y. M. C. A. Summer School.....	Charles Metsker.....	June 20	Aug. 15
Spokane.....	Spokane Summer High and Normal School.	Henry M. Hart.....	June 15	Aug. 1
Tacoma.....	College of Puget Sound.....	Edward H. Todd.....	June 21	Do.
WEST VIRGINIA.				
Athens.....	Concord State Normal School.....	L. B. Hill.....	June 15	Aug. 7
Bethany.....	Bethany College.....	T. E. Cramblet.....	June 24	Aug. 2
Buckhannon.....	West Virginia Wesleyan College.....	Carl G. Doney, LL. D.	June 21	July 31
Elkins.....	Davis and Elkins College.....	Jas. E. Allen.....	do.....	Do.
Fairmont.....	State Normal School.....	Joseph Rosier.....	do.....	Do.
Huntington.....	Marshall College.....	L. J. Corbly.....	June 12	Aug. 6
Institute.....	West Virginia Colored Institute.....	Byrd Prillerman, M. A.	June 14	July 23
Morgantown.....	West Virginia University.....	Waitman Barbe, M. A., Litt. D.	June 21	Aug. 21
Ripley.....	Ripley Normal School.....	A. S. Lee.....	Apr. 1	Aug. 1
Salem.....	Salem College.....	C. B. Clark.....	June 14	July 23
Shepherdstown.....	Shepherd College State Normal School.	Thomas C. Miller.....	June 10	July 21
Terra Alta.....	Summer School for Teachers.....	F. W. Gandy.....	June 1	Aug. 1
WISCONSIN.				
Eau Claire.....	Summer Normal School.....	Delos O. Kinsman, Ph. D.	June 15	Aug. 25
Green Lake.....	Sandstone Camp for Girls.....	Elva I. Holford and Esther G. Cochrane, 578 Holly Avenue, St. Paul, Minn.	May 15	Oct. 1
Janesville.....	Rock County Training School.....	Frank J. Lowth.....	June 20	Aug. 20
La Crosse.....	State Normal School.....	Ernest D. Long.....	July 5	Aug. 24
Madison.....	Indianola Camp and Tutorial School.	F. G. Mueller.....	June 28	Aug. 6
Do.....	University of Wisconsin.....	S. H. Goodnight, Ph. D.	Aug. 1	Sept. 15
Do.....	Wisconsin Library Commission....	Mary E. Hazeltine....	July 26	Aug. 28
Menomonie.....	Stout Institute.....	George F. Buxton.....	June 15	Aug. 13
Milwaukee.....	State Normal School.....	W. H. Cheever.....	June 30	Aug. 11
Do.....	Y. M. C. A. Summer School.....	C. A. Passell.....	(1)	
Monroe.....	Green County Training School.....	C. B. Stanley.....	June 21	July 30
New London.....	Waupaca County Training School..	Asa M. Royce.....	July 1	Aug. 26
Oconto.....	Oconto Normal School.....	Henry E. Polley.....	June 21	Aug. 20
Oshkosh.....	Algoma Camp.....	M. H. Small.....	June 14	Aug. 13
Do.....	State Normal School.....	J. A. Wilgus.....	(1)	
Platteville.....	do.....	W. E. Smith.....	June 14	Aug. 16
Reedsburg.....	Sauk County Training School.....	W. S. Welles.....	June 7	Aug. 6
River Falls.....	State Normal School.....	Frank S. Hyer.....	June 14	Aug. 15
Stevens Point.....	do.....	J. A. Merrill.....	June 21	July 31
Superior.....	do.....	A. E. Smith.....	July 5	Aug. 6
Viroqua.....	Vernon County Training School....	T. J. Jones.....	June 14	Aug. 13
West Allis.....	Public Vacation School.....	Albert H. Yoder.....	July 1	July 28
Whitewater.....	State Normal School.....	Frank H. Burt, LL. D.		
Williams Bay.....	Y. M. C. A. College.....			
WYOMING.				
Laramie.....	University of Wyoming.....	J. O. Creager.....	June 15	July 23

1 No session.

XVIII.—DIRECTORS OF LIBRARY SCHOOLS.

Location.	Name of institution.	Director.
Sacramento, Cal	California State Library School.....	James L. Gillis, director.
Atlanta, Ga.....	Library Training School (Carnegie Library)....	Mrs. Percival Sneed, principal.
Urbana, Ill.....	University of Illinois Library School.....	Phineas L. Windsor, director.
Boston, Mass.....	Simmons College School of Library Science.....	June R. Donnelly, director.
Albany, N. Y.....	New York State Library School.....	James I. Wyer, jr., director.
Brooklyn, N. Y.....	Pratt Institute School of Library Science.....	Edward T. Stevens, director.
New York, N. Y.....	Library School of the New York Public Library.	Mary W. Plummer, principal.
Syracuse, N. Y.....	Syracuse University Library School.....	E. E. Sperry, director.
Cleveland, Ohio.....	Western Reserve Library School (Western Reserve University).	Alice S. Tyler, director.
Do.....	Cleveland Public Library.....	
Pittsburgh, Pa.....	Training School for Children's Librarians (Carnegie Library), Schenley Park.	Sarah C. N. Bogle, director.
Madison, Wis.....	Wisconsin Library School (Wisconsin Free Library Commission and the University of Wisconsin).	Matthew S. Dudgeon, director.

XIX.—DIRECTORS OF MUSEUMS.

Location.	Name of museum or of institution controlling it.	Director.
ALABAMA.		
Auburn.....	Alabama Polytechnic Institute.....	
Montgomery.....	Alabama Department of Archives and History..	Thomas M. Owen, director.
Talladega.....	Talladega College.....	
Tuscaloosa.....	Geological Survey of Alabama.....	Eugene Allen Smith, director.
ALASKA.		
Sitka.....	Alaska District Historical Library and Museum.	Gov. J. F. A., official custodian.
Do.....	The Sheldon Jackson Museum.....	
ARIZONA.		
Tucson.....	University of Arizona.....	Herbert Brown, curator.
ARKANSAS.		
Conway.....	Hendrix College.....	G. H. Burr, director.
Fayetteville.....	University of Arkansas.....	A. H. Purdue, State geologist.
CALIFORNIA.		
Avalon, Santa Catalina Island.	Tuna Club.....	Charles F. Holder, honorary curator.
Do.....	Zoological Station.....	
Berkeley.....	University of California, Department of Botany.	W. A. Setchell, director.
Do.....	University of California, Department of Geology and Mineralogy.	Andrew C. Lawson, director.
Do.....	University of California, Museum of Paleontology.	J. C. Merriam, director.
Do.....	University of California, Museum of Vertebrate Zoology.	Joseph Grinnell, director.
Claremont.....	Pomona College.....	C. F. Baker, curator.
Los Angeles.....	Board of Education, Science and Art Museum (High School).	Frank S. Daggett, director.
Do.....	Chamber of Commerce.....	
Do.....	Southern California Academy of Sciences.....	
Do.....	The Southwest Museum.....	Hector Alliot, curator.
Do.....	University of Southern California.....	
Do.....	Zoological Park.....	
Oakland.....	Oakland Public Museum.....	C. P. Wilcomb, curator.
Do.....	Piedmont Art Gallery.....	Richard L. Partington, curator.
Do.....	Sage Library.....	Anna L. Sawyer, librarian.
Pacific Grove.....	Pacific Grove Museum Association.....	
Palo Alto.....	Leland Stanford Junior Museum.....	H. C. Peterson, curator.
Do.....	Leland Stanford Junior University.....	
Pasadena.....	Throop Polytechnic Institute.....	Charles F. Holder, honorary curator.

XIX.—DIRECTORS OF MUSEUMS—Continued.

Location.	Name of museum or of institution controlling it.	Director.
CALIFORNIA—continued.		
Sacramento.....	California Museum Association.....	W. F. Jackson, curator.
San Francisco.....	California Academy of Sciences.....	Barton W. Evermann, director.
Do.....	California State Mining Bureau.....	F. McN. Hamilton, curator.
Do.....	Memorial Museum (Golden Gate Park).....	George Haviland Barron, curator.
Do.....	San Francisco Institute of Art.....	Robert Howe Fletcher, director.
Do.....	University of California, Anthropological Museum.	A. L. Kroeber, curator.
Santa Clara.....	Santa Clara University, Museum of Mineralogy and Paleontology.	Anthony Cichi, director.
Do.....	Zoological Park.....	
COLORADO.		
Boulder.....	University of Colorado.....	Junius Henderson, curator.
Colorado Springs.....	Colorado College.....	Edward R. Warren, director.
Denver.....	Colorado Mineral Museum (State capitol).....	T. R. Henahan, director.
Do.....	Colorado Museum of Natural History.....	J. D. Figgins, director.
Do.....	Colorado Scientific Society (Boston Block).....	G. L. Cannon, curator.
Do.....	East Side High School.....	Do.
Do.....	State Board of Horticulture.....	Mrs. Martha Shute, director.
Do.....	State Bureau of Mines.....	
Do.....	State Historical and Natural History Society.....	Jerome C. Smiley, curator.
Do.....	War Relics Department (capitol building).....	Isaac A. Abbot, custodian.
Do.....	Zoological Park.....	
Fort Collins.....	State Agricultural College.....	W. L. Burnet, curator.
Golden.....	Colorado School of Mines, Mineralogical Museum.	H. B. Patton, director.
Greeley.....	State Normal School.....	L. A. Adams, director.
CONNECTICUT.		
Greenwich.....	Bruce Art Museum.....	
Hartford.....	Connecticut Historical Society.....	
Do.....	Theological Seminary (Broad St.).....	
Do.....	Trinity College, Boardman Hall of Natural History.	Frederick W. Carpenter, director.
Do.....	Wadsworth Atheneum.....	Frank Butler Gay, director.
Litchfield.....	Litchfield Historical Society.....	Mrs. Emily N. Vanderpool, curator.
Meriden.....	Meriden Scientific Association.....	
Middletown.....	Middlesex County Historical Society.....	A. R. Crittenden, curator.
Do.....	Wesleyan University.....	William North Rice, director.
New Britain.....	New Britain Institute (Public Library, 144 Grove St.).....	Anna G. Rockwell, librarian.
New Haven.....	New Haven Colony Historical Society.....	Frederick Bostwick, curator.
Do.....	Yale University, Botanical Garden.....	James W. Toumey, director.
Do.....	Yale University, the Eaton Herbarium.....	
Do.....	Yale University, Peabody Museum of Natural History.	
Do.....	Yale University, School of the Fine Arts.....	George H. Lanzettel, assistant curator.
Do.....	Yale University, Steinhart Collection.....	
New London.....	New London Historical Society.....	
Norwich.....	Norwich Free Academy, Slater Memorial Museum.	Helen Marshall, curator.
Storrs.....	Connecticut Agricultural College.....	
Waterbury.....	Mattatuck Historical Society (119 W. Main St.).....	G. H. Lamson, jr., curator.
DELAWARE.		
Newark.....	Delaware College.....	
Wilmington.....	Historical Society of Delaware (924 Market St.).....	
Do.....	Zoological Park.....	
Do.....	Natural History Society of Delaware.....	Linda Palmer-Jones, secretary.
DISTRICT OF COLUMBIA.		
Washington.....	Army Medical Museum.....	F. F. Russell, curator.
Do.....	Catholic University of America.....	Henry Hyvernat, director.
Do.....	Corcoran Gallery of Art.....	Frederick B. McGuire, director.
Do.....	Georgetown University, the Coleman Museum.....	Francis A. Tondorf, curator.
Do.....	George Washington University Medical School.....	F. F. Russell, director.
Do.....	Howard University.....	R. E. Schuh, director.
Do.....	Library of Congress, Division of Prints.....	Arthur Jeffrey Parsons, chief.
Do.....	National Gallery of Art, Smithsonian Institution.	William H. Holmes, curator.
Do.....	United States National Museum.....	Richard Rathbun, assistant secretary.
Do.....	National Zoological Park.....	Frank Baker, superintendent.

XIX. --DIRECTORS OF MUSEUMS--Continued.

Location.	Name of museum or of institution controlling it.	Director.
FLORIDA.		
DeLand.....	John B. Stetson University, Monroe Heath Museum.	John F. Baerecke, director.
Gainesville.....	State University of Florida.....	T. Van Hyning, director.
St. Augustine.....	St. Augustine Institute of Science and Historical Society.	Dewitt Nebb, president.
GEORGIA.		
Atlanta.....	Zoological Park.....	S. W. McCallie, curator.
Do.....	State Museum.....	
Macon.....	Mercer University.....	H. H. Stone, curator. William Harden, custodian.
Oxford.....	Emory College.....	
Savannah.....	Telfair Academy of Arts and Sciences.....	
HAWAII.		
Honolulu.....	Bernice Pauahi Bishop Museum.....	William T. Brigham, director.
IDAHO.		
Moscow.....	University of Idaho, Dept. of Geology and Mineralogy.	Charles A. Stewart, director.
ILLINOIS.		
Bloomington.....	Illinois Wesleyan University, Powell Museum.....	Milo Custer, custodian.
Do.....	McLean County Historical Society.....	
Carlinville.....	Blackburn College, Taylor Museum.....	Frank C. Baker, acting director. Caroline M. McIlvaine, librarian. Ruth G. Nichols, librarian and curator. Frederick J. V. Skiff, director. I. B. Meyers, curator. James Henry Breasted, director. T. C. Chamberlin, director.
Chicago.....	Art Institute of Chicago.....	
Do.....	Chicago Academy of Sciences (Lincoln Park).....	
Do.....	Chicago Historical Society (Dearborn Ave. and Ontario St.)	Thomas W. Galloway, curator.
Do.....	Chicago School of Civics and Philanthropy, Social Museum (35 Dearborn St.).	
Do.....	Field Museum of Natural History.....	J. Seymour Currey, president. Alfred Emerson, acting director.
Do.....	University of Chicago, Educational Museum.....	
Do.....	University of Chicago, Haskell Oriental Museum.....	U. S. Grant, curator. H. V. Neal, curator.
Do.....	University of Chicago, Walker Museum.....	
Do.....	Zoological Park.....	L. M. Umbach, curator.
Decatur.....	James Milliken University, Biological Museum.....	
Elgin.....	Elgin Scientific Society.....	J. A. Udden, curator.
Evanston.....	Evanston Historical Society.....	
Do.....	Northwestern University-Garrett Biblical Institute, Bennett Museum of Christian Archaeology.	A. R. Crook, curator. W. W. Davis, secretary. Frank Smith, curator.
Do.....	Northwestern University College of Liberal Arts.	
Do.....	Swedish Historical Society of America.....	A. S. Pease, curator.
Galesburg.....	Knox College, Hurd Museum.....	
Joliet.....	Joliet Township High School.....	N. C. Brooks, curator.
Lake Forest.....	Lake Forest College.....	
Naperville.....	Northwestern College.....	Caleb King, curator. Mason D. Thomas, curator.
Peoria.....	Zoological Park.....	
Rock Island.....	Augustana College.....	J. W. Adams, director. A. E. Weaver, custodian.
Springfield.....	Illinois State Historical Library and Society.....	
Do.....	State Museum of Natural History.....	Harold Haven Brown, director. W. S. Blatchley, curator. H. L. Bruner, director.
Sterling.....	Whiteside County Historical Society.....	
Urbana.....	University of Illinois.....	R. L. Whitson, director.
INDIANA.		
Bloomington.....	Indiana University.....	Allen David Hole, curator.
Do.....	Indiana University, Museum of Classical Archaeology and Art.	
Do.....	Indiana University, Museum of European Culture.	Henry County Historical Society.....
Centerville.....	Wayne County Historical Society.....	
Crawfordsville.....	Wabash College, Hovey Museum.....	Hamilton County Historical Association.....
Crown Point.....	Old Settlers and Historical Association of Lake County.	
Franklin.....	Franklin College.....	Notre Dame University.....
Goshen.....	Elkhart County Historical Society.....	
Hanover.....	Hanover College.....	Earlham College, The Joseph Moore Museum....
Indianapolis.....	Art Association of Indianapolis, John Herron Art Institute.	
Do.....	Indiana State Museum.....	Earlham College, The Joseph Moore Museum....
Do.....	University of Indianapolis-Butler College.....	
Do.....	Zoological Park.....	Earlham College, The Joseph Moore Museum....
Marion.....	Grant County Historical Society, Octogenarian Museum.	
Newcastle.....	Henry County Historical Society.....	Earlham College, The Joseph Moore Museum....
Noblesville.....	Hamilton County Historical Association.....	
Notre Dame.....	Notre Dame University.....	Earlham College, The Joseph Moore Museum....
Richmond.....	Earlham College, The Joseph Moore Museum....	

XIX.—DIRECTORS OF MUSEUMS—Continued.

Location.	Name of museum or of institution controlling it.	Director.
INDIANA—continued.		
South Bend.....	Northern Indiana Historical Society.....	George A. Baker, secretary.
Do.....	Zoological Park.....	
Terre Haute.....	Emeline Fairbanks Memorial Library.....	Mrs. Sallie C. Hughes, librarian.
Upland.....	Taylor University, Walker Museum.....	
IOWA.		
Cedar Falls.....	Iowa State Teachers College.....	
Cedar Rapids.....	Iowa Masonic Library and Museum.....	N. R. Parvin, librarian.
College Springs.....	Amity College.....	
Davenport.....	Davenport Academy of Sciences.....	E. K. Putnam, acting director.
Do.....	Zoological Park.....	
Des Moines.....	Historical Department of Iowa.....	Edgar R. Harlan, curator.
Do.....	Zoological Park.....	
Dubuque.....	Carnegie-Stout Free Public Library.....	Lillian B. Arnold, librarian.
Do.....	Herrmann Museum of Natural History.....	Richard Herrmann, director.
Fayette.....	Upper Iowa University.....	Guy West Wilson, curator.
Grinnell.....	Grinnell College, Parker Museum of Natural History.....	H. W. Norris, curator.
Independence.....	Free Public Library.....	S. W. Geiser, director.
Iowa City.....	Museum of Art and Archaeology.....	C. H. Weller, director.
Do.....	Ranney Library and Museum.....	Malcolm G. Wyer, librarian.
Do.....	State University of Iowa, Zoological Museum...	C. C. Nutting, curator.
Madrid.....	Madrid Historical Society.....	
Waverly.....	Wartburg Teachers Seminary.....	
KANSAS.		
Atchison.....	Midland College.....	D. W. Crouse, director.
Baldwin.....	Baker University.....	C. S. Parmenter, chief curator.
Emporia.....	College of Emporia.....	D. C. Schaffner, director.
Do.....	Kansas State Normal School.....	W. H. Keller, curator.
Lawrence.....	University of Kansas.....	Frank Strong, director.
Lindsborg.....	Bethany College.....	E. O. Deere, curator.
Manhattan.....	Kansas State Agricultural College, Natural History Museum.	Robert K. Nahoms, curator.
Topeka.....	Kansas State Historical Society.....	George W. Martin, secretary.
Do.....	Washburn College.....	Ira D. Cardiff, director.
Salina.....	Kansas Wesleyan University.....	A. W. Giles, director.
Wichita.....	Zoological Park.....	
KENTUCKY.		
Bowling Green.....	Ogden College.....	
Frankfort.....	Kentucky State Historical Society.....	
Lexington.....	Kentucky Geological Survey.....	J. B. Hoenig, director.
Do.....	Transylvania University.....	Alfred Fairhurst, director.
Louisville.....	Louisville Free Public Library.....	George T. Settle, librarian.
LOUISIANA.		
Baton Rouge.....	Louisiana State University.....	
New Orleans.....	Delgado Museum of Art.....	C. W. Boyle, curator.
Do.....	Louisiana Historical Association (Memorial Hall).	J. W. Gaines, custodian.
Do.....	Louisiana State Museum.....	Robert Glenk, curator.
Do.....	Newcomb Art School.....	Ellsworth Woodward, director.
Do.....	Tulane University.....	George E. Beyer, curator.
MAINE.		
Augusta.....	Kennebec Historical Society.....	P. S. Mooney, secretary.
Do.....	Maine State Museum.....	Thomas A. James, curator.
Brunswick.....	Bowdoin College.....	Henry Johnson, curator.
Eliot.....	William Fogg Library.....	
Hinckley.....	Good Will Home Association.....	
Lewiston.....	Art Museum of Bates College.....	Marianna Woodhull, director.
North Bridgton.....	Bridgton Academy.....	
Orono.....	University of Maine, Museum of Natural History.	Mintin A. Chrysler, curator.
Orrs Island.....	Orrs Island Library.....	Ellen M. Mountfort, librarian.
Paris.....	Hamlin Memorial Hall.....	
Poland Spring.....	Poland Spring Art Gallery.....	Nettie M. Ricker, art director.
Portland.....	Maine Historical Society.....	
Do.....	Portland Society of Art, L. D. M. Sweat Memorial Art Museum.	John Calvin Stevens, managing director.
Do.....	Portland Society of Natural History.....	Arthur H. Norton, librarian.
Do.....	Zoological Park.....	
Saco.....	York Institute.....	
Waterville.....	Colby College.....	

XIX.—DIRECTORS OF MUSEUMS—Continued.

Location.	Name of museum or of institution controlling it.	Director.
MARYLAND.		
Annapolis.....	Maryland Geological Survey.....	William Bullock Clark, director.
Baltimore.....	Goucher College.....	Arthur Barneveld Bibbins, director.
Do.....	Johns Hopkins University, Museum of Oriental and Classical Archaeology.....	David M. Robinson, acting director.
Do.....	Maryland Academy of Sciences.....	Percy M. Reese, director.
Do.....	Maryland Institute for the Promotion of the Mechanic Arts.....	C. Y. Turner, director.
Do.....	Peabody Institute.....	Samuel C. Chew, president.
Do.....	Walters Gallery.....	Henry Walters, director.
Do.....	Zoological Park.....	
Belair.....	Harford County Historical Society.....	
Ellicott City.....	Rock Hill College.....	Brother Julius, secretary board of trustees.
MASSACHUSETTS.		
Amherst.....	Amherst College.....	B. K. Emerson, director.
Do.....	Massachusetts Agricultural College.....	C. E. Gordon, curator.
Andover.....	Abbot Academy.....	
Do.....	John-Esther Art Gallery.....	Jane B. Carpenter, custodian.
Do.....	Phillips Academy.....	Charles Peabody, director.
Beverly.....	Beverly Historical Society.....	
Boston.....	Boston Society of Natural History.....	Charles W. Johnson, curator.
Do.....	Bostonian Society (Old State House).....	Charles F. Reed, treasurer.
Do.....	Children's Museum.....	Della I. Griffin, Pine Bank, Olmsted Park, Jamaica Plain, Mass.
Do.....	Harvard Medical School, Warren Anatomical Museum.....	William F. Whitney, director.
Do.....	Massachusetts Historical Society.....	
Do.....	Museum of Fine Arts.....	Arthur Fairbanks, director.
Do.....	Old South Association (The Old South Meeting House).....	Richard W. Hale, treasurer, 16 Central Street.
Cambridge.....	Harvard University.....	
Do.....	Harvard University, Botanical Garden.....	
Do.....	Harvard University, Botanical Section of the University Museum.....	George Henry Chase, curator.
Do.....	Harvard University, Collection of Classical Antiquities.....	H. Langford Warren, director.
Do.....	Harvard University, Department of Architecture.....	Edward Wigglesworth, curator.
Do.....	Harvard University, Geological Section of the University Museum.....	Kuno Francke, curator.
Do.....	Harvard University, Germanic Museum.....	B. L. Robinson, curator.
Do.....	Harvard University, Gray Herbarium.....	David G. Lyon, curator.
Do.....	Harvard University, Harvard Semitic Museum.....	
Do.....	Harvard University, Mineralogical Section of the University Museum.....	
Do.....	Harvard University, Museum of Comparative Zoology.....	Samuel Henshaw, director.
Do.....	Harvard University, Nelson Robinson, jr., Hall.....	
Do.....	Harvard University, Peabody Museum of American Archaeology and Ethnology.....	Frederic W. Putnam, curator.
Do.....	Harvard University, Social Museum.....	James Ford, director.
Do.....	Harvard University, William Hayes Fogg Art Museum.....	E. W. Forbes, director.
Charlestown.....	United States Navy Yard.....	
Clinton.....	Clinton Historical Society.....	
Concord.....	Public Library.....	
Danvers.....	Danvers Historical Society.....	Henry N. Comey, curator.
Deerfield.....	Pocumtuck Valley Memorial Association.....	George Sheldon, curator.
Fitchburg.....	Fitchburg Historical Society.....	Theresa N. Garfield, librarian.
Do.....	Fitchburg Public Library.....	George E. Nutting, librarian.
Gloucester.....	Cape Ann Scientific and Literary Association.....	
Greenfield.....	Historical Society of Greenfield.....	Mrs. Mary P. Wells Smith, president.
Haverhill.....	Haverhill Historical Society.....	Leonard W. Smith, curator.
Ipswich.....	Ipswich Historical Society.....	
Lancaster.....	Thayer Museum.....	John E. Thayer, director.
Leominster.....	Leominster Public Library.....	E. G. Davis, curator.
Lexington.....	Lexington Historical Society.....	Mrs. Ellen B. Lane, custodian.
Lynn.....	Lynn Historical Society.....	C. H. Woodbury, president.
Marblehead.....	Marblehead Historical Society.....	Joel W. Giles, curator.
Marlborough.....	Marlborough Society of Natural History.....	Do.
Medford.....	Medford Historical Society.....	Agnes W. Lincoln, curator.
Methuen.....	Methuen Historical Society.....	
Milton.....	Milton Public Library.....	Gertrude E. Forrest, librarian.

XIX.—DIRECTORS OF MUSEUMS—Continued.

Location.	Name of museum or of institution controlling it.	Director.
MASSACHUSETTS—contd.		
Nantucket.....	Nantucket Historical Association.....	Susan E. Brock, curator.
New Bedford.....	Old Dartmouth Historical Society.....	William A. Wing, secretary.
Do.....	Zoological Park.....	
Newburyport.....	Historical Society of Old Newbury.....	
Newton.....	Zoological Park.....	
Northampton.....	Forbes Library.....	Lalia May Damon, acting librarian.
Do.....	Hillyer Art Gallery, Smith College.....	Alfred V. Churchill, director.
Do.....	Smith College.....	
Peabody.....	Peabody Historical Society.....	
Pittsfield.....	Berkshire Athenaeum and Museum.....	Harlan H. Ballard, curator.
Plymouth.....	Pilgrim Society.....	H. N. P. Hubbard, curator.
Rehoboth.....	Rehoboth Antiquarian Society.....	
Salem.....	Essex Institute.....	George Francis Dow, curator.
Do.....	Peabody Academy of Science, Peabody Museum.....	Edward S. Morse, director.
Sharon.....	Sharon Historical Society.....	George Kempton, custodian.
Somerville.....	Somerville Historical Society.....	
South Natick.....	Historical, Natural History, and Library Society.....	
Springfield.....	City Library Association, Art Museum.....	George Walter Vincent Smith, curator.
Do.....	City Library Association, Springfield Museum of Natural History.....	Mrs. Grace P. Johnson, curator.
Do.....	Connecticut Valley Historical Society.....	William C. Stone, curator.
Do.....	Zoological Park.....	
Taunton.....	Bristol County Academy of Sciences.....	Frederic H. Carpenter, curator.
Topsfield.....	Topsfield Historical Society.....	George Francis Dow, curator.
Tufts College.....	Tufts College, Barnum Museum.....	J. S. Kingsley, director.
Wellesley.....	Wellesley College, Farnsworth Museum of Art.....	Alice Van Vechten Brown, director.
Do.....	Wellesley College.....	Albert P. Morse, curator.
Westborough.....	Westborough Historical Society.....	Amelia Harrington, curator.
West Newbury.....	West Newbury Natural History Club.....	Helen S. Merrill, curator.
Williamstown.....	Williams College.....	R. O. Rice, director.
Woburn.....	Woburn Public Library.....	George Hill Evans, librarian.
Woods Hole.....	U. S. Bureau of Fisheries.....	J. E. B. Pope, director.
Worcester.....	Clark University.....	Louis N. Wilson, librarian.
Do.....	Worcester Art Museum.....	Philip J. Gentner, director.
Do.....	Worcester Natural History Society.....	Herbert D. Braman, superintendent.
Do.....	Worcester Society of Antiquity.....	Ellery Bleknell Crane, librarian.
MICHIGAN.		
Adrian.....	Adrian College.....	
Alma.....	Alma College, Francis A. Hood Museum.....	H. M. MacCurdy, director.
Ann Arbor.....	University of Michigan.....	Jacob Reighard, director.
Detroit.....	Department of Parks and Boulevards.....	
Do.....	Detroit Museum of Art.....	Clyde H. Burroughs, acting director.
East Lansing.....	Michigan Agricultural College.....	Walter B. Barrows, director.
Grand Rapids.....	Grand Rapids Public Library.....	Herbert E. Sargent, director.
Do.....	Kent Scientific Museum.....	Do.
Do.....	Zoological Park.....	
Houghton.....	Michigan College of Mines, Mineralogical Museum.....	A. E. Seaman, director.
Lansing.....	Michigan Historical Commission.....	George Newman Fuller, custodian.
Muskegon.....	Hackley Art Gallery.....	Raymond Wyer, director.
MINNESOTA.		
Collegeville.....	St. John's University.....	Severin Gertken, curator.
Minneapolis.....	Minnesota Academy of Sciences.....	William H. Dunwoody, president.
Do.....	Minneapolis Society of Fine Arts.....	Joseph Breck, director.
Do.....	Walker Private Gallery (807 Hennepin Ave.).....	T. B. Walker, director.
Do.....	University of Minnesota.....	Christopher W. Hall, curator.
Do.....	Zoological Park.....	
Northfield.....	Carleton College.....	
St. Paul.....	Hamline University.....	Henry L. Osborn, director.
Do.....	Minnesota Historical Society.....	William H. Lightner, president.
Do.....	St. Paul Institute of Arts and Sciences.....	Arthur Sweeney, director.
Do.....	Zoological Park.....	
St. Peter.....	Gustavus Adolphus College.....	J. A. Edquist, curator.
Winona.....	State Normal School.....	John M. Holzinger, curator.

XIX.—DIRECTORS OF MUSEUMS—Continued,

Location.	Name of museum or of institution controlling it.	Director.
MISSISSIPPI.		
Agricultural College.....	Mississippi Agricultural and Mechanical College..	William N. Logan, director.
Jackson.....	Millsaps College.....	J. M. Sullivan, director.
Do.....	State Department of Archives and History.....	Dunbar Rowland, director.
Do.....	University of Mississippi.....	E. N. Lowe, director.
MISSOURI.		
Columbia.....	State Historical Society of Missouri.....	F. A. Sampson, secretary.
Do.....	University of Missouri.....	John Pickard, curator.
Doe Run.....	Graves Private Museum.....	
Glasgow.....	Pritchett College.....	
Kansas City.....	Daniel B. Dyer Museum (Public Library Building).	Mrs. Ophelia Jacobs, curator.
Do.....	Western Gallery of Art (Public Library Building).	Mrs. Helen R. Parsons, curator.
Rolla.....	Missouri Geological Survey.....	H. A. Buehler, director.
Do.....	Missouri School of Mines.....	G. H. Cox, director.
Springfield.....	Drury College, Edward M. Shepard Museum....	Charles H. Spurgeon, curator.
St. Joseph.....	Zoological Park.....	
St. Louis.....	City Art Museum.....	R. H. Holland, director.
Do.....	Educational Museum of the St. Louis Public Schools.	C. G. Rathmann, director.
Do.....	Missouri Historical Society Museum (1600 Locust St.).	Gerard Fowke, in charge.
Do.....	Washington University.....	
Do.....	Zoological Park.....	
MONTANA.		
Bozeman.....	Montana Agricultural College.....	R. A. Cooley, director.
Helena.....	Montana State Library.....	W. Y. Pemberton, librarian.
NEBRASKA.		
Crete.....	Doane College.....	Carl O. Carlson, director.
Lincoln.....	Nebraska State Historical Society.....	E. E. Blackman, director.
Do.....	Nebraska State Museum.....	Erwin H. Barbour, curator.
Do.....	Zoological Park.....	
Omaha.....	Creighton University.....	William F. Rigge, director.
Do.....	Omaha Public Library and Museum.....	
Do.....	Zoological Park.....	
NEW HAMPSHIRE.		
Concord.....	New Hampshire Historical Society.....	
Hanover.....	Dartmouth College, Butterfield Museum.....	C. H. Hitchcock, director.
Hopkinton.....	New Hampshire Antiquarian Society.....	Sarah U. Kimball, curator.
Keene.....	Keene High School.....	
Manchester.....	Manchester Historic Association.....	
Do.....	Manchester Institute of Arts and Sciences.....	William H. Huse, curator.
NEW JERSEY.		
Flemington.....	Hunterdon County Historical Society.....	
Hackensack.....	Bergen County Historical Society (Johnson Public Library).	Frances A. Westervelt, chairman.
New Brunswick.....	Rutgers College, Geological Museum.....	J. A. Volney Lewis, curator.
Newark.....	New Jersey Historical Society (16 W. Park St.).	William S. Disbrow, chairman.
Do.....	The Newark Museum Association, The Newark Museum.	John Cotton Dana, director.
Princeton.....	Princeton University, Museum of Geology and Archaeology.	William Libbey, director.
Do.....	Princeton University, Museum of Historic Art..	Allan Marquand, director.
Salem.....	Salem County Historical Society.....	
Trenton.....	New Jersey State Museum.....	S. R. Morse, curator.
Do.....	Zoological Park.....	
Vineland.....	Vineland Historical and Antiquarian Society...	Frank D. Andrews, secretary.
Woodbury.....	Historical Society of Gloucester County.....	
NEW MEXICO.		
Santa Fe.....	Historical Society of New Mexico.....	L. Bradford Prince, president.
NEW YORK.		
Albany.....	Albany Institute.....	I. Townsend Lansing, president.
Do.....	New York State Museum.....	John M. Clarke, director.

XIX.—DIRECTORS OF MUSEUMS—Continued.

Location.	Name of museum or of institution controlling it.	Director.
NEW YORK—continued.		
Alfred.....	Alfred University, Allen Steinheim and Museum of Natural History.	James D. Bennehoff, curator.
Amsterdam.....	Montgomery County Historical Society.....	W. Max Reid, curator.
Binghamton.....	Broome County Historical Society, Art Gallery and Museum.	William F. Seward, custodian.
Do.....	Zoological Park.....	
Brooklyn.....	Brooklyn Institute of Arts and Sciences, Museums of Art, Natural Science, and Ethnology (Eastern Parkway).	William Henry Fox, director of museums.
Do.....	Children's Museum (Bedford Park).....	Anna B. Gallup, curator.
Do.....	Long Island Historical Society (Pierrepont and Clinton Sts.).	Mary E. Ingalls, assistant curator.
Do.....	Polytechnic Institute of Brooklyn.....	
Buffalo.....	Buffalo Fine Arts Academy (Delaware Park)...	Cornelia B. Sage, director.
Do.....	Buffalo Historical Society.....	Frank H. Severance, secretary.
Do.....	Buffalo Society of Natural Sciences.....	Henry R. Howland, superintendent.
Do.....	Canisius College.....	Henry Wolff, curator.
Do.....	Zoological Park.....	
Canandaigua.....	Ontario County Historical Society.....	Charles F. Milliken, president.
Canton.....	St. Lawrence University.....	George H. Chadwick, curator.
Clinton.....	Hamilton College.....	W. G. Miller, director.
Cortland.....	Cortland Science Club, Dr. F. W. Higgins Museum.	F. E. Whitmore, curator.
Elmira.....	Arnot Art Gallery.....	Jeannette M. Diven, director.
Do.....	Zoological Park.....	
Geneseo.....	Livingston County Historical Society.....	
Geneva.....	Hobart College.....	E. H. Eaton, director.
Glen Iris.....	Genesee Valley Museum.....	
Granville.....	Pember Library and Museum.....	F. T. Pember, curator.
Hamilton.....	Colgate University.....	
Ithaca.....	Cornell University, College of Civil Engineering.	E. E. Haskell, director.
Do.....	Cornell University Geological Museum.....	Henry S. Williams, director.
Do.....	Cornell University Museum of Classical Archaeology.	Eugene P. Andrews, curator.
Do.....	Cornell University, Museum of Invertebrate Zoology.	John Henry Comstock, director.
Do.....	Cornell University, Museum of Vertebrate Zoology.	
Do.....	Cornell University, Veterinary College.....	Veranus A. Moore, director.
Jamestown.....	James Prendergast Free Library Association, Art Gallery.	Lucia T. Henderson, librarian.
Johnstown.....	Johnstown Historical Society.....	
Lake George.....	New York State Historical Society.....	
New Brighton.....	Staten Island Association of Arts and Sciences, Public Museum.	Arthur Hollick, curator.
New York City.....	Academy Mount St. Vincent.....	
Do.....	American Museum of Natural History.....	F. A. Lucas, director.
Do.....	American Numismatic Society (156th St. west of Broadway).	Bauman L. Belden, director.
Do.....	Brooklyn Institute of Arts and Sciences (Lafayette Ave., Borough of Brooklyn).	William Henry Fox, director of museums.
Do.....	Columbia University, Egleston Mineralogical Museum.	Alfred J. Moses, director.
Do.....	Columbia University, Teachers College, Educational Museum.	David Eugene Smith, curator.
Do.....	Cooper Union, Museum for the Arts of Decoration.	Mrs. Abram S. Hewitt, director.
Do.....	Hispanic Society of America (156th St. west of Broadway).	E. L. Stevenson, secretary.
Do.....	The Metropolitan Museum of Art.....	Edward Robinson, director.
Do.....	Museum of French Art, French Institute in the United States (32 Nassau St.)	McDougall Hawkes, president.
Do.....	New York Botanical Garden (Bronx Park).....	N. L. Britton, director in chief.
Do.....	The New York Historical Society (170 Central Park West).	
Do.....	New York Public Library, Lenox and Stuart Galleries, and Print Dept. (5th Ave. and 70th St.)	Edwin H. Anderson, director.
Do.....	New York University.....	
Do.....	New York Zoological Society, New York Aquarium (Battery Park).	Charles Haskins Townsend, director.
Do.....	New York Zoological Society (Bronx Park).....	William T. Hornaday, director.
Do.....	Pratt Institute, School of Fine and Applied Art (Ryerson St. and DeKalb Ave., Borough of Brooklyn).	Walter Scott Perry, director.
Niagara.....	Niagara University.....	
Poughkeepsie.....	Vassar College.....	A. L. Treadwell, curator.

XIX.—DIRECTORS OF MUSEUMS—Continued.

Location.	Name of museum or of institution controlling it.	Director.
NEW YORK—continued.		
Rochester.....	Bevier Memorial, Mechanics' Institute.....	Edmund Lyon, chairman.
Do.....	Memorial Art Gallery, University of Rochester...	
Do.....	Municipal Museum (Exposition Park).....	Edward D. Putnam, curator.
Do.....	Rochester Academy of Science.....	
Do.....	Rochester Historical Society, Rochester Municipal Museum.	Robert T. Webster, curator.
Do.....	University of Rochester, Zoological Museum.....	Chas. Wright Dodge, curator.
Do.....	Ward's Natural Science Establishment.....	Frank A. Ward, president.
Do.....	Zoological Park.....	
Schenectady.....	Schenectady County Historical Society.....	
Do.....	Union College, Natural History Museum.....	James H. Stoller, curator.
Schoharie.....	Schoharie County Historical Society.....	Henry Cady, curator.
Skaneateles.....	Skaneateles Library Association, Barrow Art Gallery.	George Barrow, president.
Southampton, Long Island.	Southampton Art Museum.....	Samuel L. Parrish, director.
Syracuse.....	Onondaga Historical Association (311 Montgomery St.)	Mrs. L. L. Goodrich, custodian.
Do.....	Syracuse Museum of Fine Arts (Syracuse Public Library Building).	Fernando A. Carter, director.
Do.....	Syracuse University.....	Charles W. Hargitt, director.
Troy.....	Rensselaer Polytechnic Institute.....	John M. Clarke, director.
Utica.....	Oneida Historical Society.....	
Waterloo.....	Waterloo Library and Historical Society.....	
Watertown.....	Jefferson County Historical Society.....	
West Point.....	U. S. Military Academy.....	
Yonkers.....	Phillipse Manor House.....	
NORTH CAROLINA.		
Chapel Hill.....	University of North Carolina.....	
Concord.....	Scotia Seminary.....	
Davidson.....	Davidson College.....	
Durham.....	Trinity College.....	James J. Wolfe, director.
Do.....	Trinity College Historical Society.....	
Raleigh.....	North Carolina State Museum.....	H. H. Brimley, curator.
Tryon.....	Green Museum.....	
Do.....	Polk County Museum.....	
Wake Forest.....	Wake Forest College.....	
NORTH DAKOTA.		
Bismarck.....	State Historical Society.....	H. C. Fish, curator.
Fargo.....	Agricultural College.....	J. H. Shepperd, vice director.
University.....	University of North Dakota.....	M. A. Brannon, director.
OHIO.		
Akron.....	Zoological Park.....	
Berea.....	Baldwin University.....	
Canton.....	Zoological Park.....	Ell Hardenstein, park superintendent.
Cincinnati.....	Cincinnati Museum Association.....	J. H. Gest, director.
Do.....	Cincinnati Society of Natural History (312 Broadway).	T. B. Collier, director.
Do.....	Cuvier Club.....	
Do.....	Historical and Philosophical Society of Ohio Museum (Burnet Woods Park).	Charles Drury, custodian.
Do.....	Lloyd Library and Museum.....	
Do.....	University of Cincinnati.....	W. H. Aiken, curator.
Do.....	Zoological Park.....	J. Ernest Carman, assistant curator.
Cleveland.....	Case School of Applied Science.....	F. A. Comstock, curator.
Do.....	Cleveland Museum of Art.....	Frederic Allen Whiting, director.
Do.....	Cleveland School of Art (Juniper Drive and Magnolia Ave.).	Mrs. Stevenson Burke, president.
Do.....	Western Reserve Historical Society (Euclid Ave. and 107th St.).	Albion M. Dyer, curator.
Do.....	Western Reserve University.....	F. H. Herrick, director.
Do.....	Zoological Park.....	
Columbus.....	Columbus Art Association, Columbus Gallery of Fine Arts (51 N. Monroe Ave.).	Mrs. William McClellan Ritter, president.
Do.....	Ohio State Archaeological and Historical Society, Page Hall, Ohio State University.	William C. Mills, curator.
Do.....	Ohio State University.....	
Dayton.....	Dayton Public Library and Museum.....	L. Simonton, custodian.
Delaware.....	Ohio Wesleyan University.....	Lewis G. Westgate, curator.
Fremont.....	Sandusky County Pioneer and Historical Association.	
Greenville.....	Carnegie Library.....	Charles L. Katzenberger, curator.

XIX.—DIRECTORS OF MUSEUMS—Continued.

Location.	Name of museum or of institution controlling it.	Director.
OHIO—continued.		
Hiram.....	Hiram College.....	George H. Colton, curator.
Norwalk.....	Firelands Historical Society.....	
Oberlin.....	Oberlin College.....	F. O. Grover, director.
Do.....	Oberlin College, Olney Art Collection.....	Mrs. A. A. Wright, custodian.
Scioto.....	Scioto College.....	
Springfield.....	Clark County Historical Society.....	Elizabeth Josephine Smart, secretary.
Tiffin.....	Heidelberg University.....	M. E. Kleckner, curator.
Toledo.....	Toledo Museum of Art.....	George W. Stevens, director.
Do.....	Zoological Park.....	
Yellow Springs.....	Antioch College.....	
OKLAHOMA.		
Bacone.....	Bacone College.....	
Oklahoma City.....	Oklahoma Historical Society.....	W. P. Campbell, custodian.
Do.....	Zoological Park.....	
OREGON.		
Corvallis.....	Oregon Agricultural College.....	A. B. Cordley, director.
Eugene.....	University of Oregon.....	F. L. Barker, director.
Portland.....	Oregon Academy of Sciences.....	
Do.....	Oregon Historical Society.....	George H. Himes, curator.
Do.....	Portland Art Association, Museum of Art.....	Anna Belle Crocker, curator.
Do.....	Portland Free Museum.....	Asa Sleeth, curator.
Do.....	Zoological Park.....	
PENNSYLVANIA.		
Allentown.....	Lehigh County Historical Society.....	
Do.....	Muhlenberg College.....	
Bradford.....	McKean County Historical Society.....	
Bryn Mawr.....	Bryn Mawr College.....	C. A. Reeds, director.
Doylestown.....	Bucks County Historical Society.....	Warren S. Ely, curator.
Easton.....	Lafayette College.....	
Erie.....	Erie Public Museum.....	Thomas L. Austin, curator.
Frankford.....	Historical Society of Frankford.....	
Germantown.....	Site and Relic Society of Germantown.....	
Gettysburg.....	Pennsylvania College.....	E. S. Breidenbaugh, curator.
Harrisburg.....	Historical Society of Dauphin County.....	
Do.....	Pennsylvania State Museum.....	Thomas Lynch Montgomery, director.
Haverford.....	Haverford College.....	Henry S. Pratt, director.
Lebanon.....	Lebanon County Historical Society.....	S. P. Heilman, secretary.
Meadville.....	Allegheny College.....	Robert S. Breed, curator.
Meyerstown.....	Albright College.....	J. P. Sotber, curator.
New Brighton.....	Merrick Free Art Gallery, Museum and Library.....	Frank A. Merrick, director.
Norristown.....	Historical Society of Montgomery County.....	
Philadelphia.....	Academy of Natural Sciences (Logan Square)...	Samuel G. Dixon, president.
Do.....	American Entomological Society, Academy of Natural Sciences (Logan Square).....	Henry Skinner, curator.
Do.....	American Negro Historical Society.....	George W. Mitchell, secretary.
Do.....	Drexel Institute Museum (Chestnut and 32d St.).....	
Do.....	Historical Society of Pennsylvania (1300 Locust St.).....	John W. Jordan, librarian.
Do.....	Independence Hall and National Museum.....	Wilfred Jordan, curator.
Do.....	Numismatic and Antiquarian Society of Philadelphia, The Numismatic Collection (Fairmount Park).....	T. Louis Comparette, curator.
Do.....	Pennsylvania Academy of the Fine Arts.....	John F. Lewis, president.
Do.....	Pennsylvania Museum (Memorial Hall, Fairmount Park).....	Edwin At Lee Barber, director.
Do.....	The Philadelphia Commercial Museum (34th and Spruce Sts.).....	W. P. Wilson, director.
Do.....	Presbyterian Historical Society, Museum and Gallery (Witherspoon Building).....	Alfred Percival Smith, curator.
Do.....	United States Mint.....	T. L. Comparette, curator.
Do.....	University of Pennsylvania, The University Museum.....	G. B. Gordon, director.
Do.....	University of Pennsylvania, Wistar Institute of Anatomy and Biology.....	Milton J. Greenman, director.
Do.....	W. P. Wistach Collection (Memorial Hall, Fairmount Park).....	E. A. Shunk, custodian.
Do.....	Wagner Free Institute of Science (17th St. and Montgomery Ave).....	John G. Rothermel, superintendent.
Do.....	Zoological Society of Philadelphia (Fairmount Park).....	Robert D. Carson, superintendent.
Pittsburgh.....	Carnegie Institute, Department of Fine Arts.....	John W. Beatty, director.
Do.....	Carnegie Museum, Department of Carnegie Institute.....	W. J. Holland, director.
Do.....	University of Pittsburgh.....	
Do.....	Zoological Park.....	

XIX.—DIRECTORS OF MUSEUMS—Continued.

Location.	Name of museum or of institution controlling it.	Director.
PENNSYLVANIA—contd.		
Pottsville.....	Schuylkill County Historical Society.....	H. J. Herbein, curator.
Reading.....	Historical Society of Berks County.....	Andrew Shaaber, librarian.
Scranton.....	Everhart Museum of Natural History, Science, and Art.	R. N. Davis, curator.
Do.....	Zoological Park.....	
South Bethlehem.....	Lehigh University.....	Benj. L. Miller.
State College.....	Pennsylvania State College.....	
Swarthmore.....	Swarthmore College.....	Spencer Trotter, director.
Uniontown.....	Fayette County Historical Society.....	James Hannen, custodian.
Valley Forge.....	Valley Forge Museum of American History.....	W. Herbert Burk, director.
Washington.....	Washington and Jefferson College.....	
Do.....	Washington County Historical Society.....	Mrs. Helene C. Beatty, libra- rian.
West Chester.....	Chester County Historical Society.....	Justin E. Harlan, curator.
Do.....	West Chester State Normal School.....	
Wilkes-Barre.....	Wyoming Historical and Geological Society.....	Horace Edwin Hayden, li- brarian.
Williamsport.....	The James V. Brown Library.....	O. R. Howard Thomson, li- brarian.
York.....	York County Historical Society.....	George R. Prowell, curator.
RHODE ISLAND.		
Barrington.....	Barrington Historic-Antiquarian Society.....	Emma S. Bradford, librarian.
Pawtucket.....	Zoological Park.....	
Providence.....	Annmary Brown Memorial.....	Frank M. Cushman, custo- dian.
Do.....	Brown University.....	J. F. Collins, curator.
Do.....	Moses Brown School.....	
Do.....	Park Museum (Roger Williams Park).....	Harold L. Madison, curator.
Do.....	Providence Athenæum.....	
Do.....	Rhode Island Historical Society.....	Howard M. Chapin, librarian.
Do.....	Rhode Island School of Design.....	L. Earle Rowe, director.
Do.....	Zoological Park.....	
SOUTH CAROLINA.		
Charleston.....	Carolina Art Association.....	James Simons, president.
Do.....	Charleston Museum.....	Paul M. Rea, director.
Do.....	Daughters of the Confederacy, Charleston Chap- ter.	Martha B. Washington, pres- ident.
Clemson College.....	Clemson College, Natural History Museum.....	F. H. H. Calhoun, curator.
Clinton.....	Thornwell Museum.....	Wm. P. Jacobs, curator.
Columbia.....	University of South Carolina.....	A. C. Moore, acting president.
Greenville.....	Furman University.....	G. A. Buist, curator.
Newberry.....	Newberry College, Sifley Museum.....	
Spartanburg.....	Wofford College.....	D. A. Du Pre, director.
SOUTH DAKOTA.		
Pierre.....	State Historical Society, South Dakota State Museum.	Doane Robinson, director.
Rapid City.....	South Dakota School of Mines.....	Cleophas C. O'Harra, direc- tor.
Vermilion.....	University of South Dakota.....	
TENNESSEE.		
Chattanooga.....	Zoological Park.....	
Clarksville.....	Southwestern Presbyterian University.....	
Knoxville.....	University of Tennessee.....	C. H. Gordon, director.
Lebanon.....	Cumberland University.....	Kate A. Hinds, director.
Maryville.....	Maryville College.....	
Memphis.....	Cossitt Library Museum Association, Cossitt Library.	Lida Speed, custodian.
Do.....	Zoological Park.....	
Nashville.....	Tennessee Historical Society.....	
Do.....	Vanderbilt University.....	L. C. Glenn, director.
Do.....	Walden University, Walden Museum.....	Mrs. H. H. Oneal, director.
Do.....	Zoological Park.....	
TEXAS.		
Austin.....	University of Texas, Museum of Economic Geology.	William B. Phillips, director.
Dallas.....	Dallas Art Association (Fair Park).....	Mrs. George K. Meyer, presi- dent.
Fort Worth.....	Fort Worth Museum of Art (Carnegie Library).. .	Mrs. Murray P. Bewley, presi- dent.
Houston.....	Houston Museum and Scientific Society (Audi- torium).	C. L. Brock, director.
Do.....	William M. Rice Institute of Arts and Sciences..	T. Lindsey Blayney, director dept. art and literature.

XIX.—DIRECTORS OF MUSEUMS—Continued.

Location.	Name of museum or of institution controlling it.	Director.
TEXAS—continued.		
San Antonio.....	Scientific Society of San Antonio (Stevens Building).	John Kern Strecker, jr., curator.
Do.....	Zoological Park.....	
Waco.....	Baylor University.....	
UTAH.		
Salt Lake City.....	Deseret Museum.....	James E. Talmage, curator. Edwin Evans, president. Orson Howard, curator.
Do.....	Utah Art Institute.....	
Do.....	University of Utah.....	
VERMONT.		
Burlington.....	University of Vermont.....	G. H. Perkins, curator. Avery E. Lambert, director. Dorman B. E. Kent, librarian.
Middlebury.....	Middlebury College, Museum of Natural History.....	
Montpelier.....	Vermont Historical Society.....	
Do.....	Vermont State Museum.....	George H. Perkins, curator. Alice W. Wilcox, director.
St. Johnsbury.....	The Fairbanks Museum of Natural Science.....	
Do.....	St. Johnsbury Athenæum.....	
Westfield.....	Hitchcock Memorial Museum.....	E. S. Miller, curator.
VIRGINIA.		
Blacksburg.....	Virginia Polytechnic Institute.....	Ellison A. Smyth, jr., director.
Charlottesville.....	University of Virginia, Lewis Brooks Museum.....	H. D. Campbell, director.
Emory.....	Emory and Henry College.....	
Lexington.....	Washington and Lee University.....	
Norfolk.....	Zoological Park.....	Susie B. Harrison, director.
Richmond.....	Confederate Memorial Literary Society, Confederate Museum (White House of the Confederacy).	
Do.....	Department of Agriculture and Immigration.....	
Do.....	R. E. Lee Camp No. 1 Confederate Veterans.....	A. S. Baird, acting commandant.
Do.....	Richmond College.....	C. H. Ryland, curator.
Do.....	The Valentine Museum.....	E. V. Valentine, president.
Do.....	Virginia State Library (State Capitol).....	
WASHINGTON.		
Pullman.....	State College of Washington.....	W. T. Shaw, curator. Annie H. Calhoun, head of art department. F. S. Hall, curator.
Seattle.....	Seattle Public Library.....	
Do.....	University of Washington, State Museum.....	
Do.....	Washington State Art Association, Museum of Arts and Sciences (Carnegie Library Building).	George L. Berg, director.
Do.....	Zoological Park.....	
Spokane.....	do.....	
Tacoma.....	Ferry Museum.....	George L. Berg, director.
Do.....	Tacoma Academy of Science.....	
Do.....	Zoological Park.....	
WEST VIRGINIA.		
Morgantown.....	West Virginia University.....	
WISCONSIN.		
Appleton.....	Lawrence College, Lawrence College Museum...	Rufus Mather Bogg, curator.
Ashland.....	Ashland public schools.....	H. E. Cole, president. Ira M. Buell, director.
Baraboo.....	Sauk County Historical Society.....	
Beloit.....	Beloit College.....	
Darlington.....	Lafayette County Historical Society.....	P. H. Conley, president.
Green Bay.....	Kellogg Public Library.....	Deborah B. Martin, librarian. Charles E. Brown, chief.
Madison.....	State Historical Museum of Wisconsin.....	
Do.....	University of Wisconsin.....	
Milton.....	Milton College.....	A. R. Crandall, director.
Milwaukee.....	Layton Art Gallery.....	George Raab, curator. Henry L. Ward, director.
Do.....	Public Museum of the City of Milwaukee.....	
Do.....	Zoological Park.....	
Racine.....	Racine Public Library.....	Frank M. Erickson, dean. William Metzdorf, director.
Ripon.....	Ripon College.....	
St. Francis.....	St. Francis Seminary, Salzmann Museum.....	
WYOMING.		
Laramie.....	University of Wyoming.....	W. H. Reed, curator.

XX.—EDUCATIONAL BOARDS AND FOUNDATIONS.

Name of board.	President.	Secretary.	Meeting.
Anna T. Jeanes Foundation.	J. H. Dillard, Charlottesville, Va.	Robert R. Moton, Hampton, Va.	New York, N. Y., January, 1915.
Carnegie Corporation of New York.	Andrew Carnegie, 2 East 91st St., New York, N. Y.	James Bertram, 576 Fifth Ave., New York, N. Y.	New York, N. Y., November 19, 1914.
Carnegie Foundation for the Advancement of Teaching.	H. S. Pritchett, 576 Fifth Ave., New York, N. Y.	Clyde Furst, 576 Fifth Ave., New York, N. Y.	
General Education Board.	F. T. Gates, chairman, 26 Broadway, New York, N. Y.	Wallace Buttrick, 17 Battery Place, New York, N. Y.	New York, N. Y., October 22, 1914.
John F. Slater Fund.....	William A. Slater, 1731 I St., Washington, D. C.	James H. Dillard, Charlottesville, Va.	
Kahn Foundation for the Foreign Travel of American Teachers.	E. D. Adams, 71 Broadway, New York, N. Y.	Frank D. Fackenthal, Substation 84, New York, N. Y.	
Phelps-Stokes Fund.....	I. N. Phelps Stokes, chairman, 100 William St., New York, N. Y.	Anson Phelps Stokes, Yale University, New Haven, Conn.	New York, N. Y., 3d Wednesday in April and November.
Russell Sage Foundation..	Mrs. Russell Sage, 604 Fifth Ave., New York, N. Y.	John M. Glenn, 130 East 22d St., New York, N. Y.	Monthly, October to May, inclusive.
Southern Education Board.	F. R. Chambers, New York, N. Y.	A. P. Bourland, 508 McLachlen Bldg., Washington, D. C.	

XXI.—CHURCH EDUCATIONAL BOARDS AND SOCIETIES.

Name of board.	President.	Secretary.
Council of Church Boards of Education in the United States of America.	F. H. Gotwald, 218 East Market St., New York, N. Y.	Ralph D. Kyle, 310-311 Searles Bldg., Monmouth, Ill.
American Baptist Education Society.....	L. A. Crandall, Minneapolis, Minn.	Frank W. Padelford, 714 Ford Bldg., Boston, Mass.
American Christian Convention, Department of Education.	W. G. Sargent, Providence, R. I.	F. G. Coffin, 126 Chestnut St., Albany, N. Y.
American Unitarian Association, Committee on Education.	.....	.....
Congregational Education Society.....	Charles R. Brown, vice president.	Edward S. Tead, Congregational House, Boston, Mass.
Disciples of Christ, College Association.....	Miner L. Bates, Hiram, Ohio.	Joseph A. Serena, Keuka Park, N. Y.
Evangelical Lutheran Church, Board of Education.	M. Rhodes, 4414 Washington Ave., St. Louis, Mo.	F. G. Gotwald, York, Pa.
Methodist Episcopal Church, Board of Education.	William F. McDowell, Chicago, Ill.	Thomas Nicholson, 150 Fifth Ave., New York, N. Y.
Methodist Episcopal Church, South, Board of Education.	E. E. Hoss, Nashville, Tenn.	Stonewall Anderson, 810 Broadway, Nashville, Tenn.
National Baptist Convention, Educational Board.	T. J. Searcy, 385 South Cynthia St., Nashville, Tenn.	S. E. Griggs, 658 Lauderdale St., Nashville, Tenn.
Northern Baptist Convention, Board of Education.	E. D. Burton, chairman, Chicago, Ill.	Frank W. Padelford, 714 Ford Bldg., Boston, Mass.
Presbyterian Church in the United States of America, Board of Education.	Charles Wadsworth, jr., Overbrook, Pa.	Joseph W. Cochran, 511 Witherspoon Bldg., Philadelphia, Pa.
Presbyterian Church in the United States of America, College Board.	John H. MacCracken, New York University, New York, N. Y.	Robert Mackenzie, 156 Fifth Ave., New York, N. Y.
Presbyterian Church in the United States of America, University Work.	Charles Wadsworth, jr., Overbrook, Pa.	Richard C. Hughes, Madison, Wis.
Presbyterian Church in the United States (Southern), Board of Education.	J. M. Vander Meulen.....	Henry H. Sweets, Louisville, Ky.
Protestant Episcopal Church, General Board of Religious Education.	Daniel S. Tuttle, St. Louis, Mo.	William E. Gardner, 281 Fourth Ave., New York, N. Y.
Reformed Church in America, Board of Education.	Elias W. Thompson, Hastings-on-Hudson, N. Y.	John G. Gebhard, 25 East 22d St., New York, N. Y.
Reformed Episcopal Church, Committee on Education and Publication.	.....	.....
Society of Friends, 5-years' meeting, Board of Education.	Robert L. Kelly, Richmond, Ind.	Seth K. Gifford, Providence, R. I.
Society of Friends, General Conference, Committee on Education.	Bird T. Baldwin, Swarthmore, Pa.	Susan W. Janney, Philadelphia, Pa.
United Presbyterian Church, Board of Education.	T. G. Peacock.....	Ralph D. Kyle, 310-311 Searles Bldg., Monmouth, Ill.

XXII.—SUPERINTENDENTS OF CATHOLIC PAROCHIAL SCHOOLS.

[Archdioceses are indicated by an asterisk (*).]

Diocese or archdiocese.	Name and title of supervising officer.	Address.
Albany, N. Y.....	Rev. Joseph A. Dunney, S. T. L., inspector of schools.	12 Madison Place, Albany, N. Y.
Baker City, Oreg.....	Rev. Hugh J. Marshall, diocesan inspector of schools.	Cathedral, Baker City, Oreg.
*Baltimore, Md.....	Rev. Lawrence Brown, superintendent (Baltimore City).	31 North Fulton Ave., Baltimore, Md.
*Boston, Mass.....	Rev. Augustine F. Hickey, S. T. L., supervisor of schools.	75 Union Park St., Boston, Mass.
Brooklyn, N. Y.....	Rev. Joseph D. McKenna, inspector of schools.	583 Throop Ave., Brooklyn, N. Y.
Buffalo, N. Y.....	Rev. Edmund F. Gibbons, superintendent of parochial schools.	Attica, N. Y.
Cleveland, Ohio.....	Rev. William A. Kane, diocesan superintendent of parochial schools.	1007 Superior Ave., N. E., Cleveland, Ohio.
Columbus, Ohio.....	Rev. John J. Murphy, superintendent of schools.	1450 Hawthorne St., Columbus, Ohio.
	Rev. John P. Curran, superintendent of schools.	Do.
Crookston, Minn.....	Rev. Hugo Tell, O. S. B., diocesan superintendent of schools.	Ogema, Minn.
Dallas, Tex.....	Rev. L. J. Harrington, school examiner....	137 Marsalis St., Dallas, Tex.
Erie, Pa.....	Rev. John M. Gannon, D. D., D. C. L., superintendent of schools.	Cambridge Springs, Pa.
Fall River, Mass.....	Rev. Francis J. Bradley, D. D., diocesan school visitor.	Cathedral, Fall River, Mass.
	Rev. L. Damase Robert, diocesan school visitor.	Fall River, Mass.
Fargo, N. Dak.....	Very Rev. J. Baker, V. G., inspector of schools.	Oakes, N. Dak.
Fort Wayne, Ind.....	Rev. A. E. Lafontaine, superintendent of schools.	1140 Clinton St., Fort Wayne, Ind.
Hartford, Conn.....	Rev. W. J. Fitzgerald, S. T. L., diocesan supervisor of schools.	340 Collins St., Hartford, Conn.
Little Rock, Ark.....	Rev. Thomas V. Tobin, superintendent....	Cathedral, Little Rock, Ark.
*New Orleans, La.....	Rev. L. J. Kavanagh, superintendent.....	2406 Napoleon Ave., New Orleans, La.
*New York, N. Y.....	Rev. Joseph F. Smith, superintendent of schools.	328 West 14th St., New York, N. Y.
	Rev. Michael J. Larkin, S. T. B., superintendent of schools.	308 East 37th St., New York, N. Y.
Newark, N. J.....	Rev. John A. Dillon, superintendent of schools.	91 Washington St., Newark, N. J.
*Oregon City, Oreg.....	Rev. Edwin V. O'Hara, diocesan superintendent of schools.	62 North 16th St., Portland, Oreg.
*Philadelphia, Pa.....	Right Rev. Mgr. P. R. McDevitt, superintendent of parochial schools.	21 South 13th St., Philadelphia, Pa.
	Rev. John E. Flood, assistant superintendent.	242 South 20th St., Philadelphia, Pa.
Pittsburgh, Pa.....	Rev. H. C. Boyle, superintendent of schools.	136 North Craig St., Pittsburgh, Pa.
*St. Louis, Mo.....	Rev. A. V. Garthoeffner, superintendent of schools.	2122 South 12th St., St. Louis, Mo.
Springfield, Mass.....	Rev. John F. Conlin, P. R., diocesan school visitor.	Chicopee, Mass.
	Rev. P. F. Doyle, assistant diocesan school visitor.	395 Chestnut St., Springfield, Mass.
Trenton, N. J.....	Rev. William J. McConnell, superintendent of parochial schools.	Belmar, N. J.

XXIII.—JEWISH EDUCATIONAL ORGANIZATIONS.

NATIONAL.

Name.	Presiding officer.	Secretary.
Central Conference of American Rabbis, Religious Education Committee.	Moses J. Gries, president, Cleveland, Ohio.	Joseph S. Kornfeld, Columbus, Ohio.
Council of Jewish Women, Education Committee.	Mrs. Enoch Rauh, president, 5837 Bartlett St., Pittsburgh, Pa.	Sadie American, 448 Central Park West, New York, N. Y.
Educational League for the Higher Education of Orphans.	Martin A. Marks, president, 10229 Lake Shore Blvd., Cleveland, Ohio.	Eugene E. Wolf, 819 Williamson Bldg., Cleveland, Ohio.
Jewish Chautauqua Society.....	Perry Frankel, president, 19252 33d St., Philadelphia, Pa.	Jeannette M. Goldberg, Jefferson, Tex.
Union of American Hebrew Congregations, Board of Synagogue and School Extension.	J. Walter Freiberg, Cincinnati, Ohio.	Lipman Levy, Fourth National Bank Bldg., Cincinnati, Ohio.

XXIII.—JEWISH EDUCATIONAL ORGANIZATIONS—(Continued.)

LOCAL.

Name.	Address.	Secretary.
Hebrew Education Society.....	Baltimore, Md.....	Hugo Steiner, Law Bldg.
Bureau of Education of the Jewish Community.	New York, N. Y.....	Henrietta Szold, 356 2d Ave.
Educational Alliance.....	do.....	Bernard M. L. Ernst, 197 East Broadway.
Hebrew Education Society.....	Newark, N. J.....	Charles Elin, 810 Broad St.
Do.....	Philadelphia, Pa.....	Bernard Harris, 2031 West Tioga St.
United Jewish Educational and Charitable Associations.	St. Louis, Mo.....	Walter S. Marx.
Jewish Educational League.....	Toledo, Ohio.....	M. R. Cohn, 24 West Delaware St.

XXIV.—INTERNATIONAL ASSOCIATIONS OF EDUCATION.

- Association for the International Exchange of Students. Secretary, Henry W. Crees, Caxton House, Westminster, London, England.
- Bureau International de Fédérations d'Instituteurs. President, Ch. Rossignol; vice president, J. Winnens; secretary, P. Cnudde, Brussels. Date and place of next meeting: Prague, 1915.
- Corda Fratres. International Federation of Students. Central committee. President, George W. Nasmyth, Charlottenstrasse 55, Berlin, Germany; secretary, Louis P. Lochner, 612 South Brearly St., Madison, Wis. Ninth congress: Montevideo, 1915.
- International Academy of Sciences, Arts, and Letters: Thomas G. Lewis, 14 Seaton Place NW., Washington, D. C.; Charles N. Murray, 1639 W St. SE., Washington, D. C.
- International Association of Academies. Secretary, Carl Salemann, Imperial Academy of Sciences, St. Petersburg, Russia.
- International Child Welfare League. President, Mrs. Walston Hill Brown, New York, N. Y.; general secretary, Mrs. Isabella Charles Davis, 23 West 44th St., New York, N. Y.
- International Commission on the Teaching of Mathematics. President, G. Klein, Göttingen; general secretary, H. Fehr, 110, Florissant, Geneva, Switzerland.
- International Congress of South American Students. Fourth meeting: Santiago, Chile, 1914.
- International Congress on Commercial Education. Eighth meeting: Barcelona, Spain, 1914.
- International Congress on Physical Education. Permanent international commission. Address: Fosseprez, rue Emile Banning, 29, Brussels, Belgium.
- International Congress on Popular Education. Leipzig, September 25-29, 1914. General secretary, Paul Schlager, Eutritzscher strasse 19^{II}, Leipzig, Germany.
- International Congress on School Hygiene. President, Albert Mathieu, Paris, France. Fifth meeting: Brussels, 1916.
- International Congress on Secondary Education. Address: M. V. Wittmann, rue Neuve, Villa Paul, Genval, Belgium.
- International Faculty of Pedology. Address: Mlle. I. Ioteyko, Avenue Paul de Jaer, 35, Brussels, Belgium. Second International Congress of Pedology, Madrid, April, 1915.
- International Federation for the Development of Drawing and Art Teaching. Address: Léon Genoud, Fribourg, Switzerland.
- International Kindergarten Union. President, Mrs. Mary Bonner Page, 54 Scott St., Chicago, Ill.; secretary, Mary Murray, Springfield, Mass. Place and date of next meeting: San Francisco, first week of July, 1915.
- International League for the Rational Education of Children. Address: Boulevard Saint-Martin, 21, Paris, France.
- International Moral Education Congress. Permanent commission. Address: M. Spiller, South Hill Park, 63, London, N. W., England.
- International Sunday School Association. President, Dr. H. M. Hamill, Nashville, Tenn.; secretary, Marion Lawrance, 1416 Mallery Bldg., Chicago, Ill. Place and date of next meeting: New York, N. Y., June or July, 1916 or 1917.
- Permanent Bureaus of the International Union for Child Welfare. Meeting: Madrid, Spain, 1914.
- World's Student Christian Federation. President, Dr. Karl Fries, Stockholm, Sweden; secretary, John R. Mott, 124 East 28th St., New York, N. Y.

XXV.—LEARNED AND CIVIC ORGANIZATIONS.

The following list shows, first, the name of the organization; second, the name and address of the president; third, the name and address of the secretary; fourth, the place and date of the next meeting.

- American Academy of Arts and Letters: William D. Howells, 130 West 57th St., New York, N. Y.; Robert U. Johnson, 327 Lexington Ave., New York, N. Y.
- American Academy of Medicine: John L. Heffron, Syracuse, N. Y.; Charles McIntire, Easton, Pa.; San Francisco, Cal., 1915.
- American Academy of Political and Social Science: L. S. Rowe, University of Pennsylvania, Philadelphia, Pa.; J. F. Lichtenberger, University of Pennsylvania, Philadelphia, Pa.
- American Association for the Advancement of Science: Charles W. Eliot, Cambridge, Mass.; L. O. Howard, Smithsonian Institution, Washington, D. C.; Pacific coast, 1915.
- American Association of Museums: Oliver C. Farrington, Chicago, Ill.; Paul M. Rea, Charleston, S. C.; Pacific coast, July, 1915.
- American Chemical Society: Theodore W. Richards, Harvard University, Cambridge, Mass.; Charles L. Parsons, Box 505, Washington, D. C.; New Orleans, La., April 1-3, 1915.
- American Civic Association: J. Horace McFarland, Harrisburg, Pa.; Richard B. Watrous, 914 Union Trust Bldg., Washington, D. C.
- American Economic Association: John H. Gray, University of Minnesota, Minneapolis, Minn.; Allyn A. Young, Cornell University, Ithaca, N. Y.; Princeton, N. J., December 28-31, 1914.
- American Geographical Society: Archer M. Huntington, Broadway and 156th St., New York, N. Y.; Archibald D. Russell, Broadway and 156th St., New York, N. Y.
- American Historical Association: Andrew L. McLaughlin, University of Chicago, Chicago, Ill.; W. G. Leland, Carnegie Institution, Washington, D. C.; Chicago, Ill., December 28-31, 1914.
- American Library Association: H. C. Wellman, Springfield, Mass.; George B. Utley, 78 East Washington St., Chicago, Ill.; Berkeley, Cal., June 3-9, 1915.
- American Mathematical Society: E. B. Van Vleck, 519 North Pinckney St., Madison, Wis.; F. N. Cole, Columbia University, New York, N. Y.; New York, N. Y., January 1-2, 1915.
- American Philological Association: Edward Capps, Princeton University, Princeton, N. J.; Frank G. Moore, Columbia University, New York, N. Y.; Haverford, Pa., December, 1914.
- American Philosophical Association: J. H. Tufts, University of Chicago, Chicago, Ill.; E. G. Spaulding, Princeton University, Princeton, N. J.; Chicago, Ill., December, 1914.
- American Philosophical Society: William W. Keen, 104 South 5th St., Philadelphia, Pa.; I. Minis Hays, 104 South 5th St., Philadelphia, Pa.; April, 1915.
- American Political Science Association: John Bassett Moore, 267 West 73d St., New York, N. Y.; W. F. Dodd, University of Illinois, Urbana, Ill.; Chicago, Ill., December 28, 1914.
- American Psychological Association: R. S. Woodworth, Columbia University, New York, N. Y.; Robert M. Ogden, University of Tennessee, Knoxville, Tenn.; Philadelphia, Pa., December 29-31, 1914.
- American Social Science Association: John H. Finley, Department of Education, Albany, N. Y.; Robert S. Binkerd, 55 West 44th St., New York, N. Y.
- American Sociological Society: Edward A. Ross, University of Wisconsin, Madison, Wis.; Scott E. W. Bedford, University of Chicago, Chicago, Ill.; Princeton, N. J., December 28-31, 1914.
- American Statistical Association: John Koren, 25 Pemberton Square, Boston, Mass.; Carroll W. Doten, 491 Boylston St., Boston, Mass.; Princeton, N. J., December 28-31, 1914.
- Botanical Society of America: Albert S. Hitchcock, 1887 Park Road, NW., Washington, D. C.; George T. Moore, Missouri Botanical Gardens, St. Louis, Mo.; Philadelphia, Pa., December 28, 1914, to January 2, 1915.
- Geological Society of America: George F. Becker, 1700 Rhode Island Ave., NW., Washington, D. C.; Edmund Otis Hovey, American Museum of Natural History, New York, N. Y.
- National Academy of Sciences: William H. Welch, Baltimore, Md.; Arthur L. Day, Washington, D. C.; Chicago, Ill., November, 1914, and Washington, D. C., April, 1915.
- National Civic Federation: Seth Low, 30 East 64th St., New York, N. Y.; D. L. Cease, 1 Madison Ave., New York, N. Y.; New York, N. Y., December 3-5, 1914.
- National Conference of Charities and Correction: Mrs. John M. Glenn, New York, N. Y.; William T. Cross, 315 Plymouth Court, Chicago, Ill.; Baltimore, Md., probably May, 1915.
- National Geographic Society: Presidency vacant; O. P. Austin, 3301 Newark St., Washington, D. C.; Washington, D. C., January 8, 1915.
- National Institute of Arts and Letters: Edwin H. Blashfield, 48 Central Park South, New York, N. Y.; Ripley Hitchcock, 34 Gramercy Park, New York, N. Y.; Boston, Mass.
- National Institute of Social Sciences.
- National Municipal League: William Dudley Foulke, Richmond, Ind.; Clinton R. Woodruff, 703 North American Building, Philadelphia, Pa.; Baltimore, Md., November 18-21, 1914.

XXVI.—AMERICAN EDUCATIONAL ASSOCIATIONS.

The following list shows, first, the name of the association; second, the name and address of the president; third, the name and address of the secretary; fourth, the place and date of the next meeting.

1.—*National and sectional.*

- American Association for the Advancement of Agricultural Teaching: A. V. Storms, University of Minnesota, Minneapolis, Minn.; A. C. Monahan, Bureau of Education, Washington, D. C.
- American Association for the Advancement of Science, Section I: Vice president, Paul H. Hanus, Harvard University, Cambridge, Mass.; S. A. Courtis, 82 Elliot St., Detroit, Mich.; Philadelphia, Pa., December 30-31, 1914.
- American Association of College Registrars: George O. Foster, Lawrence, Kans.; Ezra L. Gillis, University of Kentucky, Lexington, Ky.; probably first week of March, 1915.
- American Association of Farmers' Institute Workers: W. B. Parker, Raleigh, N. C.; L. R. Taft, East Lansing, Mich.; probably San Francisco, Cal., August 30-31, 1915.
- American Association to Promote the Teaching of Speech to the Deaf: Caroline A. Yale, Northampton, Mass.; Z. F. Westervelt, School for the Deaf, Rochester, N. Y.
- American Bar Association, Section of Legal Education: Chairman, Charles E. Shepard, Seattle, Wash.; Charles M. Hepburn, Indiana University Law School, Bloomington, Ind.
- American Conference of Teachers of Journalism: Talcott Williams, Columbia University, New York, N. Y.; James M. Lee, New York University, New York, N. Y.; New York, N. Y., December, 1914.
- American Federation of Arts: Robert W. de Forest, New York, N. Y.; Leila Mechlin, 1741 New York Ave., Washington, D. C., May, 1915.
- American Federation of the Teachers of the Mathematical and Natural Sciences: C. Riborg Mann, University of Chicago, Chicago, Ill.; William A. Hedrick, McKinley Manual Training High School, Washington, D. C.; Philadelphia, Pa., with the American Association for the Advancement of Science.
- American Home Economics Association: Martha Van Rensselaer, Cornell University, Ithaca, N. Y.; Anna Barrows, Teachers College, Columbia University, New York, N. Y.; Seattle, Wash., probably August 17-20, 1915, and Oakland, Cal., probably August 23-25, 1915.
- American Institute of Dental Teachers: Fred. W. Gethro, Chicago, Ill.; John F. Biddle, 517 Arch St. N. S., Pittsburgh, Pa.; Ann Arbor, Mich., January 26-28, 1915.
- American Institute of Instruction: William Orr, Boston, Mass.; Wallace E. Mason, Keene, N. H.
- American Instructors of the Deaf (Convention of): Edward M. Gallaudet, Hartford, Conn.; Frank M. Driggs, Ogden, Utah; Hartford, Conn., 1917.
- American Medical Association, Council on Medical Education: A. D. Bevan, chairman, Chicago, Ill.; N. P. Colwell, 535 North Dearborn St., Chicago, Ill.; Chicago, Ill., February 15-16, 1915.
- American Nature-Study Society: Anna B. Comstock, Ithaca, N. Y.; Elliot R. Downing, University of Chicago, Chicago, Ill.; Philadelphia, Pa., December 30-31, 1914.
- American Open-Air School Association: Allen G. Rice, Springfield, Mass.; Walter W. Roach, 2906 Columbia Ave., Philadelphia, Pa.; probably San Francisco, Cal., 1915.
- American Physical Education Association: R. Tait McKenzie, University of Pennsylvania, Philadelphia, Pa.; James H. McCurdy, International Y. M. C. A. College, Springfield, Mass.; summer, 1915.
- American Posture League: Jessie H. Bancroft, 500 Park Ave., New York, N. Y.; Henry L. Taylor, 30 Church St., New York, N. Y.; New York, N. Y., March, 1915.
- American School Hygiene Association: Henry M. Bracken, St. Paul, Minn.; Thomas A. Storey, College of the city of New York, New York, N. Y.; San Francisco, Cal., June, 1915.
- American School Inquiry Association: William E. Chancellor, 732 Beall Ave., Wooster, Ohio; Edward Hebden, Board of Education, Baltimore, Md.; Cleveland, Ohio, December 26-28, 1914.
- American School Peace League: Randall J. Condon, Cincinnati, Ohio; Mrs. Fannie F. Andrews, 405 Marlborough St., Boston, Mass.; Oakland, Cal., July, 1915.
- American Society for Extension of University Teaching: Henry La Barre Jayne, Philadelphia, Pa.; Charles D. Atkins, 729-730 Witherspoon Building, Philadelphia, Pa.; Philadelphia, Pa., June, 1915.
- American Society for the Foreign Study of Industrial Education: L. L. Summers, Meriden, Conn.; Alice V. Joyce, 545 Lovejoy St., Portland, Oreg.
- American Society of Superintendents of Training Schools for Nurses: Clara D. Noyes, Bellevue Hospital Training School, New York, N. Y.; Sara E. Parsons, Massachusetts General Hospital, Boston, Mass.; San Francisco, Cal., May 31 to June 7, 1915.
- Associated Harvard Clubs: A. T. Perkins, St. Louis, Mo.; C. Bard, 200 Plymouth Building, Minneapolis, Minn.; San Francisco, Cal., August, 1915.
- Association of American Agricultural Colleges and Experiment Stations: E. A. Bryan, State College of Washington, Pullman; J. L. Hills, Vermont Experiment Station, Burlington, Vt.
- Association of American Law Schools: Joseph H. Beale, Harvard University, Cambridge, Mass.; Walter W. Cook, University of Chicago, Chicago, Ill.; Chicago, Ill., December 28-30, 1914.
- Association of American Medical Colleges: Isadore Dyer, New Orleans, La.; Fred. C. Zapffe, 3431 Lexington St., Chicago, Ill.; Chicago, Ill., February 25, 1915.

- Association of American Universities: Representative of the University of Minnesota, Minneapolis, Minn.; Herman V. Ames, University of Pennsylvania, Philadelphia, Pa.; Berkeley, Cal., summer 1915.
- Association of Business Officers of the State Universities and Colleges of the Middle West: Carl E. Steeb, Ohio State University, Columbus, Ohio; E. E. Brown, Lawrence, Kans.; Ann Arbor, Mich.
- Association of Colleges and Preparatory Schools of the Middle States and Maryland: C. A. Richmond, Union University, Schenectady, N. Y.; George W. McClelland, University of Pennsylvania, Philadelphia, Pa.
- Association of Colleges and Preparatory Schools of the Southern States: David C. Barrow, University of Georgia, Athens, Ga.; Bert E. Young, Vanderbilt University, Nashville, Tenn.
- Association of Collegiate Alumnae: Caroline L. Humphrey, Radcliffe College, Cambridge, Mass.; Vida H. Francis, 1421 Bellevue-Stratford, Philadelphia, Pa.; San Francisco, Cal., August 16-23, 1915.
- Association of Cosmopolitan Clubs: H. M. Udovitch, 30 East 11th Ave., Columbus, Ohio; R. C. Candee, Cosmopolitan Club, Ithaca, N. Y.; Columbus, Ohio, about December 26, 1914.
- Association of History Teachers of the Middle States and Maryland: Henry Johnson, Teachers College, Columbia University, New York, N. Y.; Edgar Dawson, Hunter College, New York, N. Y.; New York, N. Y., November 28, 1914.
- Association of Mathematical Teachers in New England: William B. Carpenter, Mechanic Arts High School, Boston, Mass.; Harry D. Gaylord, 104 Hemenway St., Boston, Mass.; Boston, Mass., December 5, 1914.
- Association of Southern State Superintendents of Public Instruction: J. Y. Joyner, Raleigh, N. C.; M. L. Brittain, Atlanta, Ga.; with Conference for Education in the South, 1915.
- Association of Southern States Rural School Supervisors: W. K. Tate, Nashville, Tenn.; L. J. Hanifan, Charleston, W. Va.
- Association of Teachers of Mathematics in the Middle States and Maryland: Eugene K. Smith, Park School, Baltimore, Md.; Howard F. Hart, Montclair High School, Montclair, N. J.; New York, N. Y.
- Association of Urban Universities: C. W. Dabney, University of Cincinnati, Cincinnati, Ohio; W. E. Clark, College of the City of New York, New York, N. Y.
- Catholic Educational Association: Thomas J. Shahan, Catholic University of America, Washington, D. C.; F. W. Howard, 1651 East Main St., Columbus, Ohio.
- Central Association of Science and Mathematics Teachers: C. E. Spicer, Joliet, Ill.; A. W. Cavanaugh, Lewis Institute, Chicago, Ill.; Chicago, Ill., November 26-27, 1915.
- Classical Association of the Atlantic States: W. F. Little, Elizabeth, N. J.; Charles Knapp, Barnard College, Columbia University, New York, N. Y.
- Classical Association of the Middle West and South: J. H. Kirkland, Nashville, Tenn.; H. J. Barton, University of Illinois, Champaign, Ill.
- Classical Association of the Pacific Northwest: Kelley Rees, Reed College, Portland, Oreg.; Julian A. Roller, Franklin High School, Portland, Oreg.; Seattle, Wash., November 26-27, 1915.
- College Conference on English in the Central Atlantic States: James W. Tupper, Easton, Pa.; Edgar C. Morris, Syracuse, N. Y.
- College Entrance Examination Board: Chairman, Byron S. Hulbut, Harvard University, Cambridge, Mass.; Thomas S. Fiske, Substation 84, New York, N. Y.; New York, N. Y., April 17, 1915.
- College Teachers of Education of the Middle West: A. S. Olin, Lawrence, Kans.; J. E. Butterworth, University of Wyoming, Laramie, Wyo.; Kansas City, Mo., December 29-30, 1914.
- Commission on Accredited Schools of the Southern States: Joseph S. Stewart, University of Georgia, Athens, Ga.; N. W. Walker, University of North Carolina, Chapel Hill, N. C.; November, 1915.
- Conference for Education in the South: J. Y. Joyner, Raleigh, N. C.; A. P. Bourland, 508 McLachlen Building, Washington, D. C.; Montgomery, Ala., or Chattanooga, Tenn., April, 1915.
- Conference of Chief School Officers of the United States: M. P. Shawkey, Charleston, W. Va.; Grace M. Shepherd, Boise, Idaho; Cincinnati, Ohio, with Department of Superintendence, February 1915.
- Conference of Church Workers in State Universities: N. S. Elderkin, Lawrence, Kans.; N. C. Fetter, Ann Arbor, Mich.
- Conference of Superintendents and Principals of American Schools for the Deaf: J. W. Jones, Columbus, Ohio; Frank M. Driggs, Ogden, Utah.
- Dental Faculties Association of American Universities: N. S. Hoff, Ann Arbor, Mich.; Edward C. Kirk, University of Pennsylvania, Philadelphia, Pa.; San Francisco, Cal., 1915.
- Eastern Art and Manual Training Teachers' Association: Harry W. Jacobs, Buffalo, N. Y.; F. P. Reagle, Montclair, N. J.
- Eastern Association of Physics Teachers: W. H. Timbie, Wentworth Institute, Boston, Mass.; Alfred M. Butler, High School of Practical Arts, Boston, Mass.; Newton, Mass., December 12, 1914.
- Eastern Commercial Teachers' Association: J. E. Fuller, Wilmington, Del.; D. A. McMillan, Central High School, Newark, N. J.; New York, N. Y., April 1-3, 1915.
- Educational Association of the Methodist Episcopal Church: Herbert Welch, Delaware, Ohio; C. D. Skinner, Cazenovia, N. Y.
- Farmers' Educational Cooperative Union of America: O. P. Ford, McFall, Ala.; T. J. Kennedy, Birmingham, Ala.
- Federation of Child-Study: Mrs. Howard S. Gans; Mrs. Thomas Seltzer, 2 West 64th St., New York, N. Y.

- Federation of State Teachers' Associations:** Charles S. Foos, Reading, Pa.; W. W. Remington, Denver, Colo.; Cincinnati, Ohio.
- Inland Empire Teachers' Association:** George H. Black, Lewiston, Idaho; J. A. Burke, Spokane, Wash.; Spokane, Wash., April 14-16, 1915.
- Lake Mohonk Conference of Friends of the Indian and Other Dependent Peoples:** Presidency vacant; H. C. Phillips, Mohonk Lake, N. Y.; Mohonk Lake, N. Y., October 20-22, 1915.
- Land Grant College Engineering Association:** H. W. Tyler, Massachusetts Institute of Technology, Boston, Mass.; G. W. Bissell, East Lansing, Mich.; Pacific Coast, 1915.
- League of Teachers' Associations:** Grace De Graff, Portland, Oreg.; Estelle Hutchins, 1008 German St., Erie, Pa.; Oakland, Cal., August 16-27, 1915.
- Missouri Valley Commercial Teachers' Association:** Eva J. Sullivan, Kansas City, Mo.; Grace Borland, Kansas City, Mo.; Topeka, Kans., November 26-27, 1915.
- Modern Language Association of America:** Felix E. Schelling, University of Pennsylvania, Philadelphia, Pa.; William G. Howard, Harvard University, Cambridge, Mass.; New York, N. Y., December 29-31, 1914.
- Montessori Educational Association:** Mrs. Alexander G. Bell, 1331 Connecticut Ave., Washington, D. C.; William Knowles Cooper, 1736 G St. NW., Washington, D. C.
- Music Teachers' National Association:** Charles H. Farnsworth, Teachers College, Columbia University, New York, N. Y.; J. Lawrence Erb, 548 Arlington Place, Chicago, Ill.; Pittsburgh, Pa., December 28, 1914.
- National Associated Schools of Scientific Business:** Managing director and secretary, Sherwin Cody, 1411 Security Building, Chicago, Ill.; Chicago, Ill., December 29, 1914.
- National Association for the Study and Education of Exceptional Children:** Ira S. Wile; Waldemar H. Groszmann, Plainfield, N. J.; Oakland, Cal., or San Francisco, Cal., August, 1915.
- National Association of Corporation Schools:** Charles P. Steinmetz, Schenectady, N. Y.; Lee Galloway, New York University, New York, N. Y.
- National Association of Dental Faculties:** Presidency vacant; C. C. Allen, Kansas City, Mo.; Ann Arbor, Mich.
- National Association of School Accounting Officers:** Henry R. M. Cook, 500 Park Ave., New York, N. Y.; William Dick, 292 City Hall, Philadelphia, Pa.
- National Association of State Universities in the United States of America:** Benjamin I. Wheeler, Berkeley, Cal.; Guy Potter Benton, University of Vermont, Burlington, Vt.; San Francisco, Cal., August 30-31, 1915.
- National Association of Teachers' Agencies:** F. G. Webb, Atlanta, Ga.; E. E. Olp, Steger Building, Chicago, Ill.; Cincinnati, Ohio, February 24-25, 1915.
- National Association of Teachers in Colored Schools:** N. B. Young, Tallahassee, Fla.; J. R. E. Lee, Tuskegee Institute, Ala.; Cincinnati, Ohio, probably third week of August, 1915.
- National Child Labor Committee:** Chairman, Felix Adler, 105 East 22d St., New York, N. Y.; Owen R. Lovejoy, 105 East 22d St., New York, N. Y.
- National Collegiate Athletic Association:** Le Baron R. Briggs, Harvard University, Cambridge, Mass.; Frank W. Nicolson, Wesleyan University, Middletown, Conn.; Chicago, Ill., December 29, 1914.
- National Commercial Teachers' Federation:** R. H. Pech, Kansas City, Mo.; Nettie Huff, Kansas City, Mo.; Chicago, Ill., December 28-31, 1914.
- National Conference Committee on Standards of Colleges and Secondary Schools:** Wilson Farrand, Newark, N. J.; Frederick C. Ferry, Williams College, Williamstown, Mass.; New York, N. Y., about February, 1915.
- National Conference of Music Supervisors:** Arthur Mason, Columbus, Ind.; Charles H. Miller, Lincoln, Nebr.; Pittsburgh, Pa., between March 15 and May 15, 1915.
- National Conference on the Education of Dependent, Truant, Backward, and Delinquent Children:** E. E. Gardner, Howard, R. I.; W. L. Kuser, Eldora, Iowa; Baltimore, Md.
- National Council of Teachers of English:** Franklin T. Baker, Teachers College, Columbia University, New York, N. Y.; James F. Hosc, Chicago Normal College, Chicago, Ill.; Cincinnati, Ohio, with Department of Superintendence, 1915.
- National Education Association:** David Starr Jordan, Leland Stanford Junior University, Stanford University P. O., Cal.; Durand W. Springer, Ann Arbor, Mich.; Oakland, Cal., August 16-28, 1915.
- National Education Association, Department of Superintendence:** Henry Snyder, Jersey City, N. J.; Mrs. Ellor C. Ripley, 1247 Commonwealth Ave., Boston, Mass.; Cincinnati, Ohio, February 22-27, 1915.
- National Education Association, National Council of Education:** Robert J. Aley, Orono, Me.; William B. Owen, Chicago Normal School, Chicago, Ill.; Oakland, Cal., August, 1915.
- National Federation of College Women:** Mrs. William O. Thompson, Ohio State University, Columbus, Ohio; secretary resigned; Cincinnati, Ohio, October, 1914.
- National German-American Teachers' Association (Nationaler Deutsch-Amerikanischer Lehrerbund):** Leo Stern, Milwaukee, Wis.; Theodore Charly, 812 Bremen St., Milwaukee, Wis.; Milwaukee, Wis., first week in July, 1915.
- National Kindergarten Association:** John Dewey, Columbia University, New York, N. Y.; Bessie Locke, 250 Madison Ave., New York, N. Y.; New York, N. Y., November, 1914.
- National League of Compulsory Education Officials:** William L. Bodine, Tribune Building, Chicago, Ill.; John B. Quinn, 911 Locust St., St. Louis, Mo.

National Shorthand Teachers' Association: Charles G. Reigner, Pittsburgh, Pa.; Mary E. Cherry, Findlay, Ohio; Chicago, Ill., December 28-31, 1914.

National Society for Broader Education: Guy Carlton Lee, Carlisle, Pa.; H. H. Langsdorf, Carlisle, Pa.; New York, N. Y., January, 1915.

National Society for the Promotion of Industrial Education: William C. Redfield, Washington, D. C.; Charles A. Prosser, 140 West 42d St., New York, N. Y.

National Society for the Study of Education: J. M. Gwinn, New Orleans, La.; S. Chester Parker, University of Chicago, Chicago, Ill.; Cincinnati, Ohio, February, 1915.

National Society of College Teachers of Education: W. W. Charters, University of Missouri, Columbia, Mo.; Carter Alexander, George Peabody College for Teachers, Nashville, Tenn.; with the Department of Superintendence, National Education Association.

National Speech Arts Association: G. C. Williams, Ithaca, N. Y.; Grace E. Makepeace, 1019 Starkweather Ave., Cleveland, Ohio.

National Vocational Art and Industrial Federation: Frances G. Blair, Springfield, Ill.; Mrs. Robert L. McCall, 4714 Washington Boulevard, Chicago, Ill.; San Francisco, Cal., week of July 26, 1915.

National Vocational Guidance Association: Jesse B. Davis, Grand Rapids, Mich.; M. Edith Campbell, Cincinnati, Ohio.

New England Association of College Teachers of Education: Raymond McFarland, Middlebury College, Middlebury, Vt.; C. C. Kohl, Mount Holyoke College, South Hadley, Mass.; Boston, Mass., November, 1915.

New England Association of Colleges and Preparatory Schools: Mary E. Woolley, South Hadley, Mass.; Walter B. Jacobs, Brown University, Providence, R. I.

New England Association of School Superintendents: Stanley H. Holmes, New Britain, Conn.; George L. Farley, Brockton, Mass.; Boston, Mass., probably November 13, 1914.

New England Association of Teachers of English: E. Charlton Black, Boston University, Boston, Mass.; Frank W. C. Hersey, 17 Lawrence Hall, Cambridge, Mass.; Boston, Mass., December 12, 1914.

New England Classical Association: Alice Walton, Wellesley College, Wellesley, Mass.; George E. Howes, Williams College, Williamstown, Mass.; Providence, R. I., probably April, 1915.

New England College Entrance Certificate Board: N. F. Davis, Brown University, Providence, R. I.; Frank W. Nicolson, Wesleyan University, Middletown, Conn.; Boston, Mass., May 7, 1915.

New England Federation of High School Commercial Teachers: Hastings Hawkes, Brockton, Mass.; W. O. Holden, Pawtucket, R. I.; October, 1915.

New England History Teachers' Association: Sidney B. Fay, Northampton, Mass.; Walter H. Cushing, Framingham, Mass.; spring, 1915.

New England Modern Language Association: Walter H. Buell; Bertha Vogel, South Boston High School, Boston, Mass.; probably Boston, Mass., May 8, 1915.

North Central Association of Colleges and Secondary Schools: J. E. Armstrong, Englewood, Ill.; Thomas A. Clark, University of Illinois, Urbana, Ill.; Chicago, Ill., March, 1915.

North Central Council of State Normal School Presidents: W. S. Dearmont, Cape Girardeau, Mo.; V. E. McCaskill, Superior, Wis.; Chicago, Ill., February 18-20, 1915.

Northwest Association of History, Government, and Economics Teachers: Warren L. Wallace, Spokane, Wash.; A. L. Kaye, Spokane, Wash.; Spokane, Wash., April, 1915.

Northwest Council of Teachers of English: N. E. Hinch, Cheney, Wash.; Alice M. Bechtel, Spokane, Wash.

Playground and Recreation Association of America: Joseph Lee, 101 Tremont St., Boston, Mass.; H. S. Braucher, 1 Madison Ave., New York, N. Y.

Public Speaking Conference of the Central Eastern States: A. L. Gates, Oxford, Ohio; H. B. Gough, Greencastle, Ind.

Religious Education Association: Charles D. Williams, Detroit, Mich.; Henry F. Cope, 332 South Michigan Ave., Chicago, Ill.; Buffalo, N. Y., March 4-7, 1915.

School Garden Association of America: Van Evrie Kilpatrick, 4852 Broadway, New York, N. Y.; Earl L. Finney, St. Paul, Minn.; Oakland, Cal., August 16-27, 1915.

Society for the Promotion of Engineering Education: Anson Marston, Iowa State College, Ames, Iowa; F. L. Bishop, University of Pittsburgh, Pittsburgh, Pa.; Ames, Iowa, June 22-25, 1915.

Society of Directors of Physical Education in Colleges: James A. Naismith, University of Kansas, Lawrence, Kans.; P. C. Phillips, Amherst, Mass.; Chicago, Ill., week of December 27, 1914.

Southern Association of College Women: Elizabeth A. Colton, Raleigh, N. C.; Mary L. Harkness, Sophie Newcomb College, New Orleans, La.; April, 1915.

Southern Educational Association: J. Y. Joyner, Raleigh, N. C.; R. A. Clayton, Birmingham, Ala.

Southern Educational Council: J. H. Phillips, Birmingham, Ala.; W. K. Tate, Nashville, Tenn.

Southern Industrial Educational Association: Seth Shepard, 1447 Massachusetts Ave., Washington, D. C.; Mrs. A. S. Stone, 331 Southern Building, Washington, D. C.; Washington, D. C., February, 1915.

Western Drawing and Manual Training Association: Florence H. Fitch, Indianapolis, Ind.; Wilson H. Henderson, Extension Division, University of Wisconsin, Milwaukee, Wis.; Chicago, Ill., May 5-8, 1915.

Woman's Educational and Industrial Union: Mrs. Mary M. Kehew, 264 Boylston St., Boston, Mass.; Frances H. Fuller, 264 Boylston St., Boston, Mass.; Boston, Mass., November 9, 1915.

Women's Intercollegiate Association for Student Government: Rachel Lewis, Radcliffe College, Cambridge, Mass.; Jeannette Dyer, Western Reserve University, Cleveland, Ohio; Cambridge, Mass., November 5-7, 1914.

2.—*State.***Alabama:**

Alabama Association of English Teachers: J. R. Rutland, Auburn; Mrs. Sarah E. Luther, Troy.

Alabama Educational Association: S. R. Butler, Huntsville; William C. Griggs, Gadsden.

Alabama Sunday School Association: William D. Dunn, Grove Hill; Leon C. Palmer, Montgomery; Dothan, April 7-9, 1915.

Association of Alabama colleges: Andrew Sledd, Southern University, Greensboro; James J. Doster, University of Alabama, University.

Arizona:

Arizona State Teachers' Association: I. D. Payne, Tempe; A. H. Rummel.

Arkansas:

Arkansas Negro Teachers' Association: H. C. Yerger, Hope; Lila Barnett, 1816 Summit Ave., Little Rock; Pine Bluff, December 29-31, 1914.

Arkansas School Directors' Association: Allen Winham, Texarkana; L. B. McClure, Russellville.

Arkansas State Teachers' Association: James L. Bond, Little Rock; W. E. Laseter, England; April, 1915.

California:

California Association of Teachers of English: Emma J. Breck, Oakland; Miss E. V. Schneider, Oakland High School, Oakland.

California Council of Education: E. Morris Cox, Oakland; Arthur H. Chamberlain, Monadnock Building, San Francisco.

California History Teachers' Association: J. R. Sutton, Oakland; Grace Kretsinger, Berkeley.

California Teachers' Association, Bay section: Minnie Coulter, Santa Rosa; A. J. Cloud, San Francisco; Berkeley, December 28-31, 1914.

Southern California Teachers' Association: Mrs. S. M. Dorsey, Los Angeles; J. O. Cross, Los Angeles; Los Angeles, December 17-20, 1914.

Colorado:

Colorado State Teachers' Association: Celia O. Peterson, Montclair; W. W. Remington, Denver; Denver, December 29-31, 1914.

Connecticut:

Connecticut Manual Arts Teachers' Association: William Leonard, Hartford; Delmer H. Drake, New Britain.

Connecticut Schoolmasters' Club: Walter B. Spencer, West Hartford; Charles L. Kirschner, New Haven; Hartford, February, 1915.

Connecticut State Association of Public School Superintendents: De Witt C. Allen, Montowese; Edwin C. Andrews, Greenwich; probably Meriden, December 4-5, 1914.

Connecticut State Teachers' Association: Elizabeth J. Cairns, Hartford; S. P. Willard, Colchester; Hartford, New Haven, Danbury, and New London, October 22, 1915.

District of Columbia:

Eighth Grade Principals' Association: Blanche Beckham, John Eaton School, Washington; Miss C. H. Pimper, Benning School, Washington.

English Teachers' Journal Club of Washington, D. C.: Sarah E. Simons, Central High School, Washington; Mary R. Parkman, Wilson Normal School, Washington.

High School Teachers' Association: Miss M. C. Hawes, Eastern High School, Washington; Mrs. Daisy I. Huff, Eastern High School, Washington.

Florida:

Florida Educational Association: R. E. Hall, Miami; R. L. Turner, Inverness; Lakeland, December 29-31, 1914.

Georgia:

Georgia Educational Association: J. C. Wardlaw, Milledgeville; C. L. Smith, La Grange.

Georgia State High School Association: Joseph S. Stewart, University of Georgia, Athens; H. B. Robertson, Greensboro; Athens, June 9, 1915.

Idaho:

Idaho State Teachers' Association: O. M. Elliott, Twin Falls; Miss Ivy Wilson, Boise; Boise, January 1-4, 1915.

Illinois:

Federation of Illinois Colleges: Theodore Kemp, Bloomington; H. E. Griffith, Knox College, Galesburg; Galesburg, April 26-27, 1915.

Illinois Association of Teachers of English: B. C. Richardson, Alton; E. C. Baldwin, Urbana; Urbana, November 21, 1915.

Illinois Manual Arts Association: S. J. Vaughn, DeKalb; C. E. Lang, Chicago; Danville, February, 1915.

Illinois State Music Teachers' Association: E. R. Lederman, Centralia; Herbert O. Merry, Lincoln; Centralia, May, 1915.

Illinois State Teachers' Association: Hugh S. Magill, jr., Springfield; Lotus D. Coffman, University of Illinois, Champaign; Springfield, December 29-31, 1914.

Superintendents' and Principals' Association of Northern Illinois: H. A. Bone, Batavia; F. R. Skiles, Northern Illinois State Normal School, De Kalb; April 30 to May 1, 1915.

Indiana:

- Indiana Association of Teachers of English: E. H. Kemper, McComb; Helen R. Lang, Indianapolis; Indianapolis, probably November, 1915.
- Indiana City and Town Superintendents' Association: P. C. Emmons, Kendallville; J. W. Stott, Princeton; Indianapolis, December 29-31, 1914.
- Indiana College Teachers of German: B. J. Vos, Bloomington; Robert King, Wabash College, Crawfordsville; Indianapolis, February, 1915.
- Indiana State Teachers' Association: J. G. Collicott, Indianapolis; J. B. Percy, Anderson; Indianapolis, October 28-30, 1915.

Iowa:

- Iowa Association of Mathematics Teachers: W. E. Beck, Iowa City; Ira S. Condit, Iowa State Teachers College, Cedar Falls; November 5, 1915.
- Iowa Association of Religious Education: Walter S. Athearn, Drake University, Des Moines; Grace Jones, Drake University, Des Moines.
- Iowa Association of Science Teachers: Emma J. Fordyce, Cedar Rapids; J. A. Burrows, Des Moines; Des Moines, November 5 or 12, 1915.
- Iowa Association of Teachers of English: A. B. Noble, Ames; Grace Phillips, Leon; Des Moines.
- Iowa Manual Arts Association: Jacob Johnson, Denison.
- Iowa State Federation of Teachers' Clubs: Adele Fuchs, Des Moines; Mary R. Lucas, Dubuque.
- Iowa State Teachers' Association: John E. Stout, Mount Vernon; O. E. Smith, Indianola.

Kansas:

- Golden Belt Educational Association: F. H. Bailey, Oakley; Florence Quint, Hill City; Hays, March 14-15, 1915.
- Kansas Association of Mathematics Teachers: Lucy Dougherty, Kansas City; Eleanora Harris, Hutchinson; Topeka, November, 1915.
- Kansas Association of Teachers of English: N. A. Crawford, Manhattan; Charlotte M. Leavitt, Washburn College, Topeka.
- Kansas City Superintendents' Association: L. W. Mayberry, Wichita; J. W. Gowans, Winfield; Emporia, February, 1915.
- Kansas Manual Arts Association: Emma L. Gridley, Emporia; Mary Bunker, 813 West 6th St., Topeka.
- Kansas State Teachers' Association: L. A. Lowther, Emporia; D. A. Ellsworth, Topeka; November 12-14, 1914.

Kentucky:

- Association of Kentucky Colleges and Universities: M. B. Adams, Georgetown; Frank L. Rainey, Danville; Lexington, December 4-5, 1914.
- Kentucky Educational Association: W. P. King, Bellevue; T. W. Vinson, Louisville.

Louisiana:

- Louisiana State Public School Teachers' Association: C. J. Brown, Baton Rouge; L. J. Alleman, Lafayette; Baton Rouge, April, 1915.
- Louisiana State School Board Association and Parish Superintendents' Association: E. L. Kidd, Ruston; J. H. Bres, Port Allen.
- Louisiana State Sunday School Association: J. E. Scott, Alexandria; Van. Carter, 907 Maison Blanche Building, New Orleans.

Maine:

- Maine Council of Teachers of English: Roland P. Gray, Orono; E. K. Maxfield, Colby College, Waterville.
- Maine Teachers' Association: Robert J. Aley, Orono; Harold A. Allan, Augusta; probably Bangor, October 28-29, 1915.

Maryland:

- Maryland Council of Teachers of English: W. H. Wilcox, Baltimore; Andrew H. Krug, Baltimore City College, Baltimore.
- Maryland High School Teachers' Association: Joseph Blair, Sparrows Point; N. Price Turner, Salisbury.
- Maryland History Teachers' Association: John M. Vincent, Johns Hopkins University, Baltimore; Laura J. Cairnes, Western High School, Baltimore; Baltimore.
- Maryland State Teachers' Association: Edward F. Buchner, Johns Hopkins University, Baltimore; Hugh W. Caldwell, Chesapeake City; probably Ocean City, June, 1915.
- Maryland State Teachers' Federation of Grade Teachers: Mrs. Laura P. Todd; Mary T. Walsh; Baltimore, November 28, 1914.

Massachusetts:

- Massachusetts Association of School Superintendents: William F. Sims, Saugus; John C. Gray, Chicopee; March, 1915.
- Massachusetts Public School Janitors' Association: Thomas E. Bunyon, Cambridge; Wallace C. Tilton, New Bedford; Cambridge, July, 1915.
- Massachusetts Teachers' Association: Frank W. Chase, Newton; Frederic W. Plummer, Fall River; November 26, 1915.
- Massachusetts Teachers' Federation: Ernst Makechnie, West Somerville; Howard W. Poor, Reading; March 20, 1915.

Michigan:

Michigan Association of School Superintendents and School Boards: E. O. Marsh, Jackson; H. C. Daley, Wyandotte; Lansing, about April 25-26, 1915.

Michigan Association of Teachers of English: J. R. Brumm, Ann Arbor; Mrs. G. B. Scott, Grand Rapids.

Michigan Schoolmasters' Club: D. B. Waldo, Kalamazoo; Louis P. Jocelyn, Ann Arbor; Ann Arbor, March 30 to April 2, 1915.

Michigan State Federation of Teachers' Clubs: Lou I. Sigler, Grand Rapids; Margaret Strahan, 5 Mount Vernon Ave., Grand Rapids.

Michigan State Teachers' Association: Mrs. Cornelia S. Hulst, Grand Rapids; John P. Everett, Kalamazoo; Kalamazoo, October 29-30, 1914.

Minnesota:

Minnesota Association of Teachers of English: J. M. Thomas, Minneapolis; Eleanor F. Quigley, Osakis.

Minnesota Educational Association: H. L. Merrill, Hutchinson; E. D. Pennell, East High School, Minneapolis; Minneapolis, October, 1915.

Minnesota Music Teachers' Association: William McPhail, Minneapolis; J. Austin Williams, Metropolitan Music Building, Minneapolis; Albert Lea, June, 1915.

Minnesota Scandinavian Language Teachers' Association: A. A. Stomberg, Minneapolis; Emma Blorn, Hubbard County.

Mississippi:

Mississippi State Classical Teachers' Association: Christopher Longest, University; Lillian Ellington, Greenwood.

Mississippi Teachers' Association: H. P. Hughes, Starkville; H. L. McCleskey, Hazelhurst.

Missouri:

Missouri College Union: W. H. Black, Marshall; T. Berry Smith, Fayette; November, 1915.

Missouri Negro Teachers' Association: B. F. Allen, Jefferson City; Pansy B. Yoakum, 860 South Grant St., Springfield; St. Joseph, November, 1914.

Missouri Society of Teachers of English and of Modern Languages: R. J. Johnson, Kansas City; H. M. Burrowes, Columbia; Kansas City, November, 1915.

Missouri Society of Teachers of History and Government: C. H. McClure, Warrensburg; Eugene Fair, Kirksville; Kansas City, November 5, 1915.

Missouri Society of Teachers of Science and Mathematics: Clyde M. Hill, Springfield; L. D. Ames, Columbia; November, 1915, with Missouri State Teachers' Association.

Missouri State Teachers' Association: A. R. Hill, Columbia; E. M. Carter, Cape Girardeau; Kansas City, November 4-6, 1915.

Montana:

Montana Council of English Teachers: George F. Reynolds, Missoula; Bessie Dougherty, Glasgow.

Montana State Teachers' Association: G. E. Finch, Dillon; H. H. Swain, Helena; Butte, November 23-25, 1914.

Nebraska:

Nebraska History Teachers' Association: H. W. Caldwell, University of Nebraska, Lincoln; Julia M. Wort, High School, Lincoln; Lincoln, May, 1915.

Nebraska Schoolmasters' Club: E. U. Graff, Omaha; George L. Towne, Lincoln.

Nebraska State Teachers' Association: R. J. Barr, Grand Island; E. U. Graff, Omaha.

Nebraska Superintendents' and Principals' Association: C. M. Barr, Hastings; Jessie M. Pyrtle, Lincoln.

Nevada:

Nevada State Educational Association: W. J. Hunting, Carson City; Bessie L. Sherry.

New Hampshire:

New Hampshire State Teachers' Association: F. W. Lakeman, Nashua; Harriet Edmonds, Concord.

New Hampshire State Kindergarten Association: Secretary, Arleen Baldwin, Nashua.

New Jersey:

Council of Education of the State of New Jersey: C. N. Kendall, Trenton; J. H. Hulsart, Morristown.

New Jersey Association of Teachers of English: W. P. Atkinson, Jersey City; Arthur Wakelield, Hoboken.

New Jersey State Teachers' Association: Elizabeth A. Allen, Hoboken; H. J. Neal, Bridgeton; Atlantic City, December 28-30, 1914.

New Mexico:

New Mexico Educational Association: J. H. Vaughan, State College; J. H. Wagner, Santa Fe; Albuquerque, November, 1915.

New York:

Agricultural Teachers' Association: T. M. Avery, Walton; W. F. H. Breeze, Lowville; Syracuse, December 28-30, 1914.

Associated Academic Principals: Ernest L. Merritt, Gloversville; Edward P. Smith, North Tonawanda; Syracuse, December 28-30, 1914.

Association of Colleges in the State of New York: J. R. Day, Syracuse; A. S. Downing, Albany; Albany.

Association of Teachers of Mathematics: Floyd F. Decker, Syracuse; R. A. Avery, Syracuse; Syracuse, December 28-30, 1914.

New York—Continued.

Council of Elementary School Principals and Teachers: W. S. Maxson, Yonkers; L. Spinner, Buffalo; Syracuse, December 28-30, 1914.

Council of Superintendents: Herbert S. Weet, Rochester; George M. Elmendorf, Herkimer; Ithaca, 1915.

New York State Association of Teachers of English: C. A. Dawson, Syracuse; R. R. Gaston, Richmond Hill.

New York State Classical Teachers' Association: John I. Bennett, Union College, Schenectady; Joseph P. Behm, Central High School, Syracuse; Syracuse, December 29-30, 1914.

New York State Modern Language Association: Frank C. Barnes, Schenectady; Arthur G. Host, Troy High School, Troy; November, 1915.

New York State Science Teachers' Association: Guy A. Bailey, Geneseo; Ernest F. Conway, North Syracuse; Syracuse, December 29-30, 1914.

New York State Teachers' Association: Alfred C. Thompson, Brockport; Richard A. Searing, North Tonawanda.

State Association of District Superintendents of the State of New York: Ray P. Snyder, New York Mills; Gertrude E. Hyde, Moira; Utica, 1915.

North Carolina:

North Carolina Association of City Public School Superintendents: A. T. Allen, Salisbury; H. P. Harding, Charlotte; Thanksgiving week, 1915.

North Carolina Kindergarten Association: Hattie Scott, Asheville; Mary V. Bonner, Washington; Charlotte.

North Carolina State Sunday School Association: J. A. Brown, Chadbourn; J. Walter Long, Greensboro; Salisbury.

North Carolina Teachers' Assembly: M. C. S. Noble, Chapel Hill; E. E. Sams, Raleigh; Charlotte, November 25-28, 1914.

North Dakota:

North Dakota Association of English Teachers: Edna M. Twamley, Grand Forks; Blanche L. True, Fargo; Grand Forks, November, 1915.

North Dakota Educational Association: A. G. Crane, Minot; W. E. Parsons, Bismarck; Grand Forks, 1915.

North Dakota History Teachers' Association: B. C. B. Tighe, Fargo; Hazel B. Nielson, Valley City; Grand Forks, October or November, 1915.

Ohio:

Association of Township Superintendents of Ohio: J. H. Propst, Dayton; O. P. Hause, Enon; Columbus, December 22, 1914.

Ohio Association of College Presidents and Deans: President Heckert, Wittenberg College, Springfield; Miss Winona A. Hughes, Wooster; Columbus, March, 1915.

Ohio Association of English Teachers: J. V. Denney, Columbus; C. E. Thomas, Woodward High School, Cincinnati.

Ohio Association of Mathematics and Science Teachers: C. C. Morris, Ohio State University, Columbus; E. W. E. Schear, Otterbein University, Westerville; Columbus, about April 1, 1915.

Ohio College Association: R. M. Hughes, Miami University, Oxford; W. G. Leutner, Western Reserve University, Cleveland; Columbus, about Easter, 1915.

Ohio School Improvement Federation: F. A. Derthick, Mantua; W. N. Beetham, Bucyrus; Columbus, December 29-31, 1914.

Ohio State Teachers' Association: W. McK. Vance, Delaware; W. E. Kershner, Ohio State University, Columbus; Columbus, Christmas week, 1914.

Oklahoma:

Oklahoma Council of Teachers of English: T. H. Brewer, Norman; F. C. Oakes, Edmond.

Oklahoma Educational Association: R. H. Wilson, Oklahoma City; Gladys Whittet, Tecumseh.

Oregon:

Oregon Council of Teachers of English: Ida D. Callahan, Corvallis; Rosa B. Parrott, Oregon Normal School, Monmouth.

Oregon State Teachers' Association, Western division: J. Percy Wells, Jacksonville; W. M. Smith, Salem; Eugene, December 28-30, 1914.

Pennsylvania:

Pennsylvania State Educational Association: Robert C. Shaw, Greensburg; J. P. McCaskey, Lancaster; Harrisburg, December 29-31, 1914.

Rhode Island:

Rhode Island Institute of Instruction: Harold M. Dean, East Providence; M. D. Carroll, Providence; October 28-30, 1915.

South Carolina:

South Carolina Association of Colleges: Henry N. Snyder, Spartanburg; Leonard T. Baker, University of South Carolina, Columbia.

South Carolina Association of Elementary Schools: Belle Dunbar, Augusta, Ga.; Elizabeth McLean, Sumter.

South Carolina Association of Town and City Superintendents: Lueco Gunter, Rock Hill; A. C. Dinael, Clinton.

South Carolina—Continued.

South Carolina School Improvement Association: Mary E. Hite, Columbia; Isadore Williams, Liberty; probably Florence.

South Carolina State Colored Teachers' Association: N. J. Frederick, Columbia; S. L. Finley, Chester.

South Carolina State Teachers' Association: R. G. Rhett, Charleston; L. T. Baker, Columbia; Florence, March 18, 1915.

South Dakota:

South Dakota Educational Association: W. F. Jones, Vermillion; J. H. Seymour, Aberdeen; Aberdeen, probably Thanksgiving week, 1915.

Tennessee:

Tennessee History Teachers' Association: St. George L. Sioussat, Nashville; Max Souby, Murfreesboro.

Tennessee State Public School Officers' Association: M. W. Wilson, Knoxville; P. L. Harned, Clarksville; Nashville, January 14-16, 1915.

Tennessee State Teachers' Association: S. H. Thompson, Athens; P. L. Harned, Clarksville; Chattanooga, November 27, 1915.

Texas:

Conference for Education in Texas: P. M. Neff, Waco; T. R. Sampson, Austin.

Texas State Teachers' Association: R. L. Paschal, Fort Worth; T. D. Brooks, Hillsboro; San Antonio, November 26-28, 1914.

Utah:

Utah State Educational Association: G. N. Child, Salt Lake City; J. Fred Anderson, Salt Lake City; Salt Lake City, November 23-25, 1914.

Vermont:

Schoolmasters' Club of Vermont: Martin G. Benedict, St. Johnsbury; E. V. Perkins, Woodstock.

Vermont State Teachers' Association: Caroline S. Woodruff, St. Johnsbury; Etta Franklin, Rutland.

Vermont Women Teachers' Club: Etta Franklin, Rutland; Eliza Allen, Lyndonville.

Virginia:

Cooperative Education Association of Virginia: Mrs. B. B. Munford, Richmond; J. H. Binford, Richmond.

Virginia Association of Colleges and Secondary Schools: James S. Wilson, Williamsburg; John D. Rodeffer, Roanoke College, Salem; Richmond, November 23-27, 1914.

Virginia Educational Conference: Algar Woolfolk, Richmond; J. H. Binford, Richmond; Thanksgiving week, 1915.

Virginia English Teachers' Association: W. T. Myers, Spartanburg, S. C.; Evalina O. Wiggins, Lynchburg.

Virginia School Trustees' Association: N. E. Clement, Chatham; M. F. McGehee, Keysville; Richmond, November 1, 1914.

Virginia State Teachers' Association: Algar Woolfolk, Richmond; J. H. Binford, Richmond; Thanksgiving week, 1915.

Washington:

Puget Sound English Masters' Club: O. B. Sperlin, Tacoma; Victor Buchanan, Seattle.

Washington Educational Association: A. A. Cleveland, Pullman; O. C. Whitney, Tacoma; Seattle, October 27-30, 1915.

West Virginia:

West Virginia Council of Teachers of English: Walter Barnes, Fairmont; Willa Brand, Clarksburg.

West Virginia Education Association: L. L. Friend, Charleston; A. P. Morrison, Clarksburg; Charleston, June 16-18, 1915.

West Virginia State Teachers' Association: E. L. Itann, McDonald; E. V. Ellis, Oak Hill; Bluefield, November 26, 1914.

Wisconsin:

Northwestern Wisconsin Teachers' Association: H. J. Steeps, Rice Lake; Matilda Miller, Eau Claire; probably Eau Claire, October 22-23, 1915.

Wisconsin Association of Mathematics Teachers: W. H. Williams, Platteville; W. W. Hart, University of Wisconsin, Madison; Milwaukee, November, 1915.

Wisconsin Association of Teachers of English: L. W. Brooks, Racine; Harry K. Bassett, University of Wisconsin, Madison.

Wisconsin City Superintendents' Association: M. E. Keats, Oconomowoc; F. J. Jones, West Allis; Milwaukee, 1915.

Wisconsin Music Teachers' Association: Liborius Semmann, Marquette University, Milwaukee; Georgia C. Hyde, Madison; La Crosse, April 19-21, 1915.

Wisconsin Physical Education Society: George Wittich, Milwaukee; Edith Dunham, 628 Frederick Ave., Milwaukee; Milwaukee.

Wisconsin School Arts and Home Economics Association: Fred D. Crawshaw, University of Wisconsin, Madison; Lucile W. Reynolds, Madison; Milwaukee, November, 1915.

Wisconsin Teachers' Association: B. E. Nelson, Racine; M. A. Bussewitz, State Normal School, Milwaukee; Milwaukee, November 4-6, 1915.

Wyoming:

Wyoming State Teachers' Association: Maud Dawes, Douglas; May Hamilton, Casper.

3.—City.

Boston Teachers' Club: Helen E. Cleaves, Dorchester, Mass.; Margaret A. Nichols, 68 Glendale St., Dorchester, Mass.; Boston, March, 1915.

Brooklyn Teachers' Association: Frederic W. Mar, 483 Elm St., Richmond Hill, N. Y.; Adele Sondheim, 848 Park Place.

Chicago Principals' Club: Morgan G. Hogge; A. B. Wight.

Chicago Teachers' Federation: Mrs. Ida L. M. Fursman, 4465 North Kildare Ave.; Frances E. Harden, 1543 Sherwin Ave.; December 12, 1914.

Detroit Teachers' Association: Elleonore C. Bachmann; Alice V. Guysi; November 30, 1914.

Educational Society of Baltimore: Edward F. Buchner, Johns Hopkins University; Andrew H. Krug, Baltimore City College; October 9, 1914.

High School Teachers' Association of New York City: A. L. Pugh, 155 West 65th St.; Anna E. Stanton, 400 Irving Ave., Brooklyn; March 6, 1915.

New York Schoolmasters' Club: Albert B. Meredith, Plainfield, N. J.; Matthew D. Quinn, 101 East 92d St.; November, 1914.

Philadelphia Teachers' Association: Louise H. Haeseler, 17th and Spring Sts.; Mrs. Clara H. Morris, 17th and Spring Sts.

Pittsburgh Teachers' Association: Mrs. Cora Miller Fraser, 1003 Bessemer Building; Lillian M. Myers, 1003 Bessemer Building; December 8, 1914.

Public Education Association, 281 4th Ave., New York, N. Y.; Charles P. Howland; Howard W. Nudd, and Ernest A. Wreidt; January, 1915.

Public Education Association of Philadelphia, 1035 Witherspoon Building: Franklin N. Brewer; Jane R. Harper, acting.

Public School Teachers' Association of Providence, R. I.: Lewis H. Meader; Mary C. Greene.

XXVII.—STATE FEDERATIONS OF WOMEN'S CLUBS.

The officers of the General Federation of Women's Clubs (national organization) are: President, Mrs. Percy V. Pennybacker, Austin, Tex.; secretary, Mrs. Eugene Reilly, 508 Park Avenue, Charlotte, N. C.; manager, bureau of information, Mrs. Mary I. Wood, Room 4, Congress Block, Portsmouth, N. H.

Name.	President.	Secretary.	Meeting.
Alabama.....	Mrs. L. J. Haley, Birmingham.	Mrs. Francis B. Clark, Birmingham.	Montgomery, Nov. 17, 1914.
Arizona.....	Mrs. Henry D. Ross, Phoenix.	Lucy T. Ellis, Phoenix.	Phoenix, Jan. 19, 1915.
Arkansas.....	Mrs. John I. Moore, Helena.	Mrs. O. O. Florence, Conway.	San Francisco, May 15-21, 1915.
California.....	Mrs. Lillian Pray-Palmer, San Diego.	Mrs. Geo. Butler, San Diego.	
Colorado.....	Mrs. P. J. McHugh, Fort Collins.	Mrs. W. G. Sackett, Fort Collins.	Greeley, Oct. 6, 1914.
Delaware.....	Mrs. Sarah J. Reynolds, Smyrna.	Anna D. Hough, Smyrna.	Newark, May —, 1915.
District of Columbia.	Mrs. Ellis Logan, Washington.	Celynda W. Ford, Washington.	Washington.
Florida.....	Mrs. William Hocker, Ocala.	Mrs. Jack Camp, Ocala.	Albany, Oct. 27-30, 1914.
Georgia.....	Mrs. Z. I. Fitzpatrick, Thomasville.	Lucy Lester, Thomasville.	
Idaho.....	Mrs. Fred Pittenger, Boise.	Mrs. Franklin Coats, Boise.	Springfield, Nov. 10, 1914.
Illinois.....	Mrs. Frederick A. Dow, Chicago.	Mrs. Charles E. Hull, Salem.	
Indiana.....	Vida Newsom, Columbus.	Mrs. Ella M. Myers, Crawfordsville.	Evansville, Oct. 20-23, 1914.
Iowa.....	Mrs. Benjamin B. Clark, Red Oak.	Mrs. W. H. Snider, Davenport.	Iowa City, May, 1915.
Kansas.....	Mrs. C. B. Walker, Norton.	Mrs. F. S. Hazelton, Norton.	——, 3d week in November, 1915.
Kentucky.....	Mrs. Richard H. Lacey, Franklin.	Mrs. J. H. Durham, Franklin.	
Louisiana.....	Mrs. J. D. Wilkinson, Shreveport.	Mrs. Annie Carter, Shreveport.	Baltimore, April, 1915.
Maine.....	Mrs. Frederic P. Abbott, Saco.	Mary A. Bradbury, Saco.	
Maryland.....	Mrs. Edward C. Wilson, Baltimore.	Mrs. Frances Sanderson, Walbrook.	——, Spring of 1915.
Massachusetts.....	Mrs. George W. Perkins, Boston.	Mrs. Arthur A. Hibbard, Milton.	
Michigan.....	Mrs. Elnora Chamberlin, Hartford.	Mrs. Homer C. Blair, Albion.	Rochester, October, 1914.
Minnesota.....	Mrs. C. L. Atwood, St. Cloud.	Mrs. A. G. Whitney, St. Cloud.	
Mississippi.....	Mrs. James H. Price, Magnolia.	Mrs. Eugene W. Reid, Magnolia.	Vicksburg, Nov. 11, 1914.
Missouri.....	Mrs. William R. Chivvis, St. Louis.	Emma L. Taussig, St. Louis.	St. Joseph, May, 1915.
Montana.....	Mrs. Tyler B. Thompson, Missoula.	Mary Gohring, Missoula.	

Name.	President.	Secretary.	Meeting.
Nebraska.....	Mrs. A. G. Peterson, Aurora.	Mrs. F. A. Long, Madison...	
Nevada.....	Mrs. Frank G. Patrick, Reno.	Mrs. P. E. Groesbeck, Reno.	
New Hampshire....	Jennie M. De Merritt, Dover (R. F. D. No. 6).	Mrs. Leslie P. Snow, Rochester.	
New Jersey.....	Mrs. William T. Ropes, Montclair.	Mrs. H. M. Edwards, Glen Ridge.	Atlantic City, May 6-8, 1915.
New Mexico.....	Mrs. Charlotte I. Fugate, East Las Vegas.	Mrs. Frank Myers, East Las Vegas.	
New York.....	Mrs. Frank J. Shuler, Buffalo.	Mrs. A. E. Hubbard, Buffalo.	Binghamton, November, 1914.
North Carolina.....	Adelaide L. Fries, Winston-Salem.	Mrs. Edward K. Graham, Chapel Hill.	Goldsboro, May 4-7, 1915.
North Dakota.....	Minnie J. Nielson, Valley City.	Mrs. H. A. Presler, Valley City.	
Ohio.....	Anna B. Johnson, Springfield.	Mrs. Earl F. Davis, Clintonville.	
Oklahoma.....	Mrs. Charles R. Hume, Anadarko.	Mrs. H. Coulter Todd, Oklahoma City.	
Oregon.....	Mrs. Sarah A. Evans, Titusville.	Mrs. Salder Orr-Dunbar, Portland.	Eugene, Oct. 13-15, 1914.
Pennsylvania.....	Mrs. Samuel Semple, Titusville.	Mrs. William Leverett, Philadelphia.	Pittsburgh, Oct. 13-15, 1914.
Rhode Island.....	Mrs. W. M. Congdon, Providence.	Mrs. George R. Thurber, Providence.	
South Carolina.....	Mrs. J. W. Allen, Spartanburg.	Mrs. J. E. Ellerbe, Marion..	Bennetsville, spring of 1915.
South Dakota.....	Mrs. Zillah E. Wilson, Aberdeen.	Mrs. Esther C. Housman, Dell Rapids.	Deadwood, October, 1915.
Tennessee.....	Mrs. George W. Denney, Knoxville.	Mrs. T. P. Miller, Knoxville.	
Texas.....	Mrs. H. B. Fall, Houston...	Mrs. W. C. Corbett, Houston.	Galveston, Nov. 17.
Utah.....	Mrs. Andrew J. Gorham, Salt Lake City.	Mrs. Ira D. Travis, Salt Lake City.	Salt Lake City, October, 1914.
Vermont.....	Mrs. George H. Smilie, Montpelier.	Mrs. Grace T. Hathaway, Montpelier.	St. Albans, June, 1915.
Virginia.....	Mrs. Manley M. Caldwell, Roanoke.	Mrs. Fleming R. Hurt, Roanoke.	Fairfax Court House.
Washington.....	Mrs. J. S. McKee, Hoquiam.	Mrs. Milton L. Watson, Hoquiam.	Raymond, July 20-24, 1914.
West Virginia.....	Mrs. R. L. Hutchinson, Huntington.	Mrs. L. J. Corbley, Huntington.	Parkersburg, Oct. 20-22, 1914.
Wisconsin.....	Mrs. J. A. Strathearn, South Kaukauna.	Mrs. J. S. Wadsworth, River Falls.	Racine, Nov. 4-6.
Wyoming.....	Mrs. R. A. Norton, Cheyenne.	Mrs. D. M. Carley, Cheyenne.	Laramie, Oct. 6, 1914.

XXVIII.—MOTHERS' CONGRESSES.

The officers of the National Congress of Mothers' and Parent Teacher Association are: President, Mrs. Frederic Schoff, Philadelphia, Pa.; secretary, Mrs. Arthur A. Birney, 910 Loan & Trust Building, Washington, D. C. The annual convention will be held in Portland, Oreg., and San Francisco, Cal., May 17-24, 1915. En route to Portland conferences will be held in Detroit, Mich., St. Paul, Minn., Helena, Mont., and Bismarck, N. Dak., April 27-May 17, 1915. A conference will be held in Cincinnati, Ohio, February 22-27, 1915, in connection with the department of superintendence of the National Education Association.

BRANCHES.

Name.	President.	Secretary.	Meeting.
Alabama.....	Mrs. W. J. Chambers, Montgomery.	Mrs. E. A. Parker, Montgomery.	Montgomery, spring of 1915.
Arizona.....	Mrs. J. C. Norton, Phoenix..	Mrs. R. F. Washburn, 737 W. Pierce St., Phoenix.	Phoenix, February 1915.
California.....	Mrs. Hubert N. Rowell, Berkeley.	Mrs. M. J. Doyle.....	San Francisco, May 17-24, 1915.
Colorado.....	Mrs. Fred Dick, Denver....	Mrs. Isaac Sutton, 1547 Clarkson St., Denver.	Last week of December, 1914.
Connecticut.....	Mrs. B. L. Mott, New Haven	Mrs. Solon P. Davis, 86 Edward St., Hartford.	West Haven, Apr. 29-30, 1915.
Delaware.....	Mrs. G. W. Marshall, Milford.	Frances Jones, Milford.....	

BRANCHES—Continued.

Name.	President.	Secretary.	Meeting.
Georgia.....	Mrs. Howard Payne, Elberton.	Lenra M. Stilwell, Elberton.	Feb. 17, 1915.
Idaho.....	Mrs. W. E. Evans.....		
Illinois.....	Mrs. B. F. Langworthy, River Forest.	Mrs. Charles W. Blodgett, 6651 Stewart Ave., Chicago.	Ottawa, May, 1915.
Indiana.....	Mrs. Frederic Hoke, Indianapolis.	Mrs. Walter N. Carpenter, Woodruff Place, Indianapolis.	Indianapolis, October, 1914.
Iowa.....	Mrs. Charles Brenton, Dallas Center.	Mrs. J. C. Bennett, Des Moines.	
Kansas.....	Mrs. S. M. Williams, Kansas City.	Mrs. J. S. Detwiler, 1021 Ann Ave., Kansas City.	Topeka, Apr. 1-2, 1915.
Massachusetts.....	Mrs. M. P. Higgins, Worcester.	Mrs. Edward French, Andover.	Worcester, Oct. 15-17, 1914.
Mississippi.....	Mrs. J. B. Lawrence, Jackson	Mrs. W. G. Raines, Jackson..	Jackson, May, 1915.
Missouri.....	Mrs. J. B. McBride, Springfield.	Mrs. John Farrington, Springfield.	
New Hampshire.....	Mrs. John D. Moore, Laconia	Mrs. James S. Smith, Avery Court, Laconia.	Lebanon, Apr., 1915.
New Jersey.....	Mrs. A. H. Reeve, Moorestown.	Mrs. J. Linton Engle, Had-donfield.	Atlantic City, Nov. 12-13, 1914.
New York.....	Mrs. Henry O. Holland, Buffalo.	Mrs. B. S. Cushman, 306 Elm St., Ithaca.	Buffalo, Oct. 13-16, 1914.
North Carolina.....	Mrs. W. R. Hallowell, 410 Williams St., S. Goldsboro.	Caroline B. Phelps, Raleigh.	Raleigh, Aug., 1915.
Ohio.....	Mrs. J. A. Smith, Cleveland..	Mrs. Carl D. Palmer, 1397 E. 110 St., Cleveland.	
Oregon.....	Mrs. Aristene N. Felts, Portland.	Mrs. Addison A. Lindsley, 1500 E. Yamhill St., Portland.	Portland, Oct., 1914.
Pennsylvania.....	Mrs. George K. Johnson, Langhorne.	Mary S. Garrett, 1302 Spruce St., Philadelphia.	Lancaster, Oct. 28-30, 1914.
Rhode Island.....	Mrs. Dwight K. Bartlett, Edgewood.	Phoebe E. Wilbur, 21 Somerset St., Providence.	Providence, Mar., 1915.
Tennessee.....	Mrs. Eugene Crutcher, Nashville.	Mrs. R. D. Murray, 1001 Meridian St., Nashville.	Jackson, Mar., 1915.
Texas.....	Mrs. Chalmers Hutchinson, Fort Worth.	Mrs. C. T. Prewitt, 903 E. Weatherford St., Fort Worth.	San Antonio, Nov. 4-7, 1914.
Utah.....	Mrs. John E. Dooley, Salt Lake City.	Mrs. J. M. Darf, 553 E. Second South St., Salt Lake City.	Salt Lake City, May, 1915.
Vermont.....	Mrs. Henry A. Harman, Rutland.	Mrs. Willis M. Ross, Rutland.	Bennington, Oct., 1914.
Washington.....	Mrs. C. E. Beach, Olympia..	Mrs. George Funk, Olympia.	Spokane, May, 1915.
Wisconsin.....	Mrs. H. A. Betts, Mukwonago.	Elizabeth Marshall, 40 Prospect Ave., Milwaukee.	

XXIX.—EDUCATIONAL PERIODICALS.

List of American educational periodicals currently received by the library of the Bureau of Education.

[List of abbreviations: bm.—bimonthly; m.—monthly; q.—quarterly; sm.—semi-monthly; w.—weekly.]

Alabama. *See* Educational Exchange; Educator.
American Education. Albany. 10 nos.
American Educational Review. Chicago. m.
American Physical Education Review. Springfield (Mass.). 9 nos.
American Primary Teacher. Boston. 10 nos.
American School Board Journal. Milwaukee. m.
American Schoolmaster. Ypsilanti (Mich.). 10 nos.
American Teacher. New York. 10 nos.
Arizona Teacher. Phoenix. 10 nos.
Arkansas Teacher. Conway. 10 nos.
Associate Teacher. Pierre (S. Dak.). m.
Atlantic Educational Journal. Baltimore. 10 nos.
Boston Teachers News Letter. Boston. 10 nos.
Business Educator. Columbus (Ohio). 10 nos.
California. *See* Sierra Educational News; Western Journal of Education.
Catholic Educational Review. Washington, D. C. 10 nos.
Catholic School Journal. Milwaukee. 10 nos.

- Child-Welfare Magazine. Philadelphia. m.
 Christian Education. Washington, D. C. m.
 Christian Student. New York. q.
 Colorado. *See* Colorado School Journal; Public Schools.
 Colorado School Journal. Denver. 10 nos.
 Common Ground. Massachusetts Teachers Federation, Reading.
 District of Columbia. *See* Catholic Educational Review; Christian Education; Volta Review.
 Education. Boston. 10 nos.
 Educational Administration and Supervision. Baltimore. 10 nos.
 Educational Bi-Monthly. Chicago. bm. except August.
 Educational Exchange. Birmingham (Ala.). m.
 Educational Foundations. New York. 10 nos.
 Educational Review. New York. 10 nos.
 Educator. Huntsville (Ala.). m.
 Educator-Journal. Indianapolis. m.
 Elementary School Journal. Chicago. 10 nos.
 Elementary Teacher. Baltimore. 10 nos.
 English Journal. Chicago. 10 nos.
 Florida School Exponent. Tallahassee. 10 nos.
 Georgia. *See* High School Quarterly; School and Home.
 Hawaii Educational Review. Honolulu. 10 nos.
 High School Quarterly. Athens (Ga.). q.
 History Teacher's Magazine. Philadelphia. 10 nos.
 Illinois. *See* American Educational Review; Educational Bi-Monthly; Elementary School Journal; English Journal; Illinois Teacher; Journal of the Association of Collegiate Alumnae; Manual Training and Vocational Education; Nature-Study Review; Religious Education; School and Home Education; School Century; School News and Practical Educator; School Review; School Science and Mathematics.
 Illinois Teacher. Woodstock. m.
 Indiana. *See* Educator-Journal; Teacher's Journal.
 Industrial-Arts Magazine. Milwaukee. m.
 Inter-Mountain Educator. Missoula (Mont.). 10 nos.
 Iowa. *See* Midland Schools; School Music.
 Journal of Education. Boston. w.
 Journal of Educational Psychology. Baltimore. 10 nos.
 Journal of Geography. Madison (Wis.). 10 nos.
 Journal of Home Economics. Baltimore. m.
 Journal of the Association of Collegiate Alumnae. Chicago. q.
 Journal of the New York State Teachers' Association. Rochester. 8 nos.
 Kansas. *See* Kansas School Magazine; Kansas Teacher; Western School Journal.
 Kansas School Magazine. Emporia. 10 nos.
 Kansas Teacher. Emporia. m.
 Kentucky. *See* Southern School Journal; Southern Teacher.
 Kindergarten-Primary Magazine. Manistee (Mich.). 10 nos.
 Kindergarten Review. Springfield (Mass.). 10 nos.
 Louisiana School Work. Baton Rouge. 10 nos.
 McEvoy Magazine. Brooklyn (N. Y.). q.
 Manual Training and Vocational Education. Peoria (Ill.). m.
 Maryland. *See* Atlantic Educational Journal; Educational Administration and Supervision; Elementary Teacher; Journal of Educational Psychology; Journal of Home Economics.
 Massachusetts. *See* American Physical Education Review; American Primary Teacher; Boston Teachers News-Letter; Common Ground; Education; Journal of Education; Kindergarten Review; Pedagogical Seminary; Popular Educator; Primary Education; School Arts Magazine.
 Mathematics Teacher. Lancaster (Pa.). q.
 Michigan. *See* American Schoolmaster; Kindergarten-Primary Magazine; Moderator-Topics.
 Middle-West School Review. Omaha (Nebr.). m.
 Midland Schools. Des Moines. 10 nos.
 Mind and Body. Milwaukee. m.
 Minnesota. *See* Minnesota Educational Association News-Letter; School Education; Southern Minnesota Educator.
 Minnesota Educational Association News-Letter. Minneapolis. m.
 Mississippi Educational Advance. Jackson. 10 nos.
 Missouri School Journal. Jefferson City. m.
 Moderator-Topics. Lansing (Mich.). w. except July and August.
 Montana. *See* Inter-Mountain Educator.
 Nature-Study Review. Chicago. 9 nos.
 Nebraska. *See* Middle-West School Review; Nebraska School Review; Nebraska Teacher.
 Nebraska School Review. Omaha. m.

- Nebraska Teacher. Lincoln. m.
 Nevada School Journal. Carson. 10 nos.
 New Jersey. *See* School News; Training School Bulletin.
 New Mexico Journal of Education. Santa Fe. 10 nos.
 New York. *See* American Education; American Teacher; Christian Student; Educational Foundations; Educational Review; Journal of the New York State Teachers' Association; McEvoy Magazine; Normal Instructor and Primary Plans; Playground; School; School Bulletin; School Journal; Storytellers' Magazine; Teachers College Record; Teachers' Magazine; Teacher's Monographs; Vocationist.
 Normal Instructor and Primary Plans. Dansville (N. Y.). 10 nos.
 North Carolina Education. Raleigh. 10 nos.
 North Carolina High School Bulletin. Chapel Hill. q.
 Northwest Journal of Education. Seattle. 10 nos.
 Ohio. *See* Business Educator; Ohio Educational Monthly; Ohio Teacher; Rural Educator.
 Ohio Educational Monthly. Columbus. m.
 Ohio Teacher. Columbus. m.
 Oklahoma. *See* Oklahoma School Herald; Progress.
 Oklahoma School Herald. Oklahoma City. 10 nos.
 Oregon Teachers' Monthly. Salem. 10 nos.
 Pedagogical Seminary. Worcester (Mass.). q.
 Pennsylvania. *See* Child-Welfare Magazine; History Teacher's Magazine; Mathematics Teacher; Pennsylvania School Journal; Pittsburgh School Bulletin; Psychological Clinic; Public Speaking Review; School Progress; Teacher.
 Pennsylvania School Journal. Lancaster. m.
 Philippine Craftsman. Manila. 9 nos.
 Philippine Education. Manila. 10 nos.
 Pittsburgh School Bulletin. Pittsburgh. 10 nos.
 Playground. New York. m.
 Popular Educator. Boston. 10 nos.
 Primary Education. Boston. 10 nos.
 Progress. Oklahoma City (Okla.). m.
 Progressive Teacher. Nashville. 10 nos.
 Psychological Clinic. Philadelphia. 9 nos.
 Public Schools. Denver. 10 nos.
 Public Speaking Review. Swarthmore (Pa.). 8 nos.
 Religious Education. Chicago. bm.
 Rural Educator. Columbus (Ohio). m.
 School. New York. w. except August.
 School and Home. Atlanta (Ga.). m.
 School and Home Education. Bloomington (Ill.). 10 nos.
 School and Society. Garrison-on-Hudson (N. Y.). w.
 School Arts Magazine. Boston. 10 nos.
 School Bulletin. Syracuse (N. Y.). m.
 School Century. Oak Park (Ill.). 10 nos.
 School Education. Minneapolis. 9 nos.
 School Journal. New York. 10 nos.
 School Music. Keokuk (Iowa). bm. except July.
 School News. New Egypt (N. J.). 10 nos.
 School News and Practical Educator. Taylorville (Ill.). 11 nos.
 School Progress. Philadelphia. m.
 School Review. Chicago. 10 nos.
 School Science and Mathematics. Mount Morris (Ill.). 9 nos.
 Sierra Educational News. San Francisco. m.
 South Carolina. *See* Southern School News.
 South Dakota. *See* Associate Teacher; South Dakota Educator.
 South Dakota Educator. Mitchell. 10 nos.
 Southern Minnesota Educator. Fairmont. m.
 Southern School Journal. Lexington (Ky.). m.
 Southern School News. Columbia (S. C.). 9 nos.
 Southern Teacher. Grayson (Ky.). m.
 Southern Workman. Hampton (Va.). m.
 Storytellers' Magazine. New York. m.
 Teacher. Philadelphia. 10 nos.
 Teachers College Record. New York. bm. except July.
 Teacher's Journal. Marion (Ind.). m.
 Teachers' Magazine. New York. 10 nos.
 Teacher's Monographs. New York. m.
 Tennessee. *See* Progressive Teacher.
 Texas School Journal. Dallas. 10 nos.

Training School Bulletin. Vineland (N. J.). 10 nos.
 Virginia. See Southern Workman; Virginia Journal of Education.
 Virginia Journal of Education. Richmond. 10 nos.
 Vocationist. Oswego (N. Y.). q.
 Volta Review. Washington, D. C. m.
 Washington. See Northwest Journal of Education.
 West Virginia Educator. Charleston. m.
 West Virginia School Journal. Morgantown. m.
 Western Journal of Education. San Francisco. m.
 Western School Journal. Topeka. m.
 Western Teacher. Milwaukee. 10 nos.
 Wisconsin. See American School Board Journal; Catholic School Journal; Industrial-Arts Magazine; Journal of Geography; Mind and Body; Western Teacher; Wisconsin Journal of Education.
 Wisconsin Journal of Education. Madison. 10 n
 Wyoming School Journal. Laramie. 10 nos.

XXX.—FOREIGN COUNTRIES—CHIEF OFFICER OF EDUCATION, 1913-14.

Countries.	Cities.	Chief officers of education.
EUROPE.		
Austria-Hungary:		
Austria.....	Vienna.....	Minister of instruction.
Hungary (including Croatia and Slavonia).....	Budapest.....	Minister of education and public worship.
Belgium.....	Brussels.....	Minister of science and arts.
Bulgaria.....	Sophia.....	Minister of public instruction.
Denmark.....	Copenhagen.....	Minister of public instruction and ecclesiastical affairs.
France.....	Paris.....	Minister of public instruction and fine arts.
German Empire:		
Prussia (Kingdom).....	Berlin.....	Minister of ecclesiastical and educational affairs.
Bavaria (Kingdom).....	Munich.....	Minister of worship and instruction.
Saxony (Kingdom).....	Dresden.....	Do.
Wurttemberg (Kingdom).....	Stuttgart.....	Do.
Baden (Grand Duchy).....	Karlsruhe.....	Minister of worship and public instruction.
Hesse (Grand Duchy).....	Darmstadt.....	President of department of schools.
Mecklenburg-Schwerin (Grand Duchy).....	Rostock.....	Minister of justice.
Saxe-Weimer (Grand Duchy).....	Weimar.....	Chief of department of worship and instruction.
Mecklenburg-Strelitz (Grand Duchy)....	Neu-Strelitz.....	Minister of justice, ecclesiastical affairs, and instruction.
Oldenburg (Grand Duchy).....	Oldenburg.....	Chief of department of justice, worship, and instruction.
Brunswick (Duchy).....	Brunswick.....	President of commission of instruction.
Saxe-Meiningen (Duchy).....	Meiningen.....	Chief of department of justice, worship, and instruction.
Saxe-Altenburg (Duchy).....	Altenburg.....	Director general of schools.
Saxe-Coburg-Gotha (Duchy).....	Coburg.....	President of department of worship and public instruction.
Anhalt (Duchy).....	Dessau.....	President of department of instruction.
Schwarzburg-Sondershausen (Principality).....	Sondershausen.....	Chief of department of worship and instruction.
Schwarzburg-Rudolstadt (Principality).....	Rudolstadt.....	President of consistory.
Waldeck (Principality).....	Arolsen.....	Inspector general of schools.
Reuss, senior line (Principality).....	Greiz.....	President of department of worship and instruction.
Reuss, junior line (Principality).....	Gera.....	President of consistory.
Schaumburg-Lippe (Principality).....	Buckeburg.....	Head of the consistory.
Lippe (Principality).....	Detmold.....	Chairman senate committee on public instruction.
Lubeck (Free City).....	.....	President of commission of worship and instruction.
Bremen (Free City).....	.....	Do.
Hamburg (Free City).....	.....	Director general of public instruction.
Alsace-Lorraine (Imperial Territory).....	.....	.....
Great Britain and Ireland:		
England and Wales.....	London.....	President of board of education.
Scotland.....	Edinburgh.....	Secretary of the committee of council on education.
Ireland.....	Dublin.....	Commissioners of national education in Ireland.

UNITED STATES BUREAU OF EDUCATION

BULLETIN, 1914, NO. 44

WHOLE NUMBER 618

COUNTY-UNIT ORGANIZATION FOR THE ADMINISTRATION OF RURAL SCHOOLS

By A. C. MONAHAN

BUREAU OF EDUCATION

*Specialist of Bureau in
Rural Sch. Administration*

WASHINGTON
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1914

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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, October 15, 1914.

SIR: With the increase of interest in the rural public schools in all the States has come a desire for more effective rural school administration, to the ends that there may be a more economic use of school funds and that all the children may have opportunities, both better and more nearly equal, to gain the preparation for life required by modern rural conditions in so far as this preparation may be gained in the schools. The evils and the inadequacy of the single-school district as the unit of administration are more and more apparent, and it is now generally conceded that it should give way to some larger administrative unit, as it has already done in a large majority of the States. The opinion as to whether this larger administrative unit should be the county or some division of the county, as the township or the magisterial district, is not so nearly unanimous, but the trend of opinion is toward the county unit, and many requests come to this office for information as to the results obtained in those States which make the county the unit of school administration, and as to the merits of the county unit of administration, as compared with the smaller unit. To assist the bureau in answering these inquiries, Mr. A. C. Monahan, the bureau's specialist in rural school administration, has prepared the accompanying manuscript on County-Unit Organization for the Administration of Rural Schools. I recommend that it be published as a bulletin of the Bureau of Education for distribution among State and county school officers, legislators, and others directly interested in this subject.

Respectfully submitted.

P. P. CLAXTON,
Commissioner.

To the SECRETARY OF THE INTERIOR.

COUNTY-UNIT ORGANIZATION FOR THE ADMINISTRATION OF RURAL SCHOOLS.

INTRODUCTION.

An outline of the essentials of the county-unit plan of organization for the administration of rural schools was recently prepared in the Division of Rural Education of the Bureau of Education and sent to the rural school superintendents of the entire country as the first of the rural-school letters of the 1914 series. This was done on account of the wide interest in the county unit, and the many inquiries concerning it received by the bureau. Eighteen States have a county or a semicounty school system. Two of these 18 adopted the county system very recently, Wisconsin changing from the district system in 1913, Ohio from the township system in 1914. The plan, however, is not new, for Maryland adopted the county system in 1865, Louisiana in 1870, Florida in 1885, and Georgia in 1887. Movements are now on foot for its adoption in several other States; in at least 10 States now on the district basis definite steps are being taken for legislative enactment for the county unit at the next sessions of the respective legislatures.

It seems to be the consensus of opinion of leading authorities in school administration that in all States where the county is the unit of local civil government it should be also the unit in school government; and that in no State should a district smaller than a county or township be recognized as an administrative unit in school affairs. In most States the preference appears to be for the county. At a meeting of the State superintendents, held at St. Paul, Minn., in connection with the annual meeting of the National Education Association in 1914, a resolution was adopted favoring the establishment of the county-unit system. A similar resolution was adopted by the National Education Association in general session for its annual business meeting.

In the judgment of most observers, the district system is not economical or efficient. The tendency in all our States, and in foreign countries as well, is to a larger unit; in most instances to the county unit.¹ England, in 1902, adopted the county system; all schools in each county are now under the management of a board of education that is a subcommittee of the "county council"—the county board

¹ Except in the New England States, where the county is of little significance in local government, and where a change to the county unit of management in school affairs appears neither necessary nor desirable.

of local government. For very many years Scotland has been organized with the parish as a unit, the parish corresponding closely as a school unit to our township. A strong movement is in progress at the present time for a change to the county unit, and school officials of Scotland are authority for the statement that the sentiment in favor of the county basis is growing rapidly.

The rural letter referred to is the following:

RURAL-SCHOOL LETTER NO. II-1.

THE COUNTY UNIT.

The United States Bureau of Education suggests the following essentials of the county-unit basis of organization for the administration of rural schools. They result from studies of the various regulations in the States now organized on that basis:

1. The county the unit of taxation and administration of schools (except that, in administration, independent city districts employing a superintendent would not be included).

2. A county-school tax levied on all taxable property in the county, covered into the county treasury, and divided between the independent city districts and the rest of the county on a basis of the school population.¹

3. The county-school funds, including those raised by taxation and those received from the State, expended in such a way as would as nearly as possible insure equal educational opportunities in all parts of the county, regardless of the amount raised in any particular part. (Any subdistrict should be permitted to raise, by taxation or otherwise, additional funds to supplement the county funds, provided the subdistrict desired a better school plant, additional equipment, or a more efficient teaching force than could be provided from the county funds.)

4. A county board of education, in which is vested the administration of the public schools of the county (except those in independent city districts), composed of from five to nine persons, elected or appointed from the county at large; the board to be non-partisan; the term of office to be at least five years, and the terms arranged so that not more than one-fifth would expire in any one year.

5. A county superintendent of schools, a professional educator, selected by the county board of education, from within or without the county or State, for a long term (at least two years), who shall serve as the secretary and executive officer of the county board and as such be the recognized head of the public schools in the county (except those in independent city districts).

6. District trustees in each subdistrict of the county, one or more persons, elected by the voters of the district or selected by the county board, to be custodians of the school property and to serve in an advisory capacity to the county board. The expenditures of local funds raised by the subdistrict would rest with the trustees subject to the approval of the county board.

7. The powers and duties of the county board of education:

- (a) To select a county superintendent, who would be its secretary and executive officer in the performance of all of its other functions, and to appoint assistants as required.
- (b) To have general control and management of the schools of the county.
- (c) To submit estimates to the regular county taxing authority of the amount of money needed to support the schools.

¹ This basis is suggested for the division between the county-district and the independent city districts. The county board of education would expend the funds of the county district according to the needs of the various schools, not according to school population. This does not mean among the subdistricts on the school population basis.

- (d) To regulate the boundaries of the school subdistricts of the county, making from time to time such alterations as in its judgment would serve the best interests of the county system.
- (e) To locate and erect school buildings.
- (f) To supply the necessary equipment.
- (g) To fix the course of study and select textbooks (using the State course and State-adopted textbooks in the States where action has been taken).
- (h) To enforce the compulsory-education laws.
- (i) To employ teachers, fix their salaries and the salaries of other employees.

I. UNITS OF ORGANIZATION.

A unit of organization for the administration of schools is the territory in which the schools constituting one system are under the direct management and control of a single board—a *county* board in the county unit, a *township* board in the township unit, a *district* board in the district unit, or a *city* board in the city unit. The county and township units may or may not include the city schools; in most States cities are set apart as independent units.

Three distinct rural-school units of organization are found in the United States—the *district*, the *township* (and the magisterial district), and the *county*. In addition, there are several instances of mixed systems, in which responsibility for management is divided between the district and the township, the district and the county, or the township and the county. There is also some variety in the details of the township systems and much variety in those of the county systems. The district system is more uniform wherever found throughout the United States. The term “district” is used here as it is most generally understood. It is a relatively small area served usually by one school. This area, except in very sparsely settled sections, is smaller than the township. The school is usually a one-room and one-teacher school, with pupils in all stages of advancement, from the first to the eighth or tenth year.

THE DISTRICT UNIT.

The district unit, or the single district, as it is sometimes called, is the most common unit of organization for the country as a whole. It is the complete basis for the rural elementary school management in 17 States and in 4 others in part. It is also the larger factor in the management in 7 others that have semicounty systems, in which the balance of power rests with the districts rather than with the counties. The district system originated in Massachusetts with the establishment of the first public schools, when each settlement was separate and distinct from all others, and necessarily became a separate school district. The territory between the school districts so established was originally unorganized; but as it became settled all of the terri-

tory was finally included in school districts, and the peculiar conditions causing the establishment of the district system no longer existed. The system remained, however, long after the necessity for it had passed away; it was not finally ousted until 1882. The district system was adopted in all other States in the early days of settlement and was probably the only system possible when the population was grouped in a comparatively few settlements scattered over a large section of country. With the increase of population, it is passing away and is now found in only three States east of the Mississippi River.

Read in text
The conditions making the district system the only feasible one no longer exist in the greater part of the United States. Although with it progress is considerable in a few districts, it is slow and unsatisfactory in many. Except in those States where the schools are controlled largely by the State department of education, it means little State-wide advancement. It means that a very good school and a very poor school may and do often exist in adjoining districts. Under it the character of the school depends upon the educational ideals and the sentiment for education on the part of the trustees and the community. These are often low. The ability of the district to raise the funds necessary for the support of a good school is also an important factor. Many districts with the proper ideals do not contain enough taxable property to support a good school. On account of this, all States on the district basis have found it necessary to provide State educational funds to equalize in part the burden of education among the districts. In many States county funds, in addition, are raised by taxation for the same purpose. In pioneer times, where the entire population was a farming one, and the farm was self-sufficing—supplying practically all the needs of the farmer's family—the wealth of the various districts was nearly proportional to the number of farms and approximately to the number of children. These conditions have passed away. Farming is now a highly specialized commercial business. Cities and towns have developed and railroads have been built, so that school districts along the railroad and about the industrial centers have a much larger valuation without a proportional increase in school population. Such sections have therefore more money available for school purposes, while, through no fault of their own, those located away from the railroad have little money available.

The form of the district organization is nearly identical in all parts of the United States. The exceptions are in those States where the State superintendent of public instruction or county superintendent of schools is charged by legislative enactment with certain powers and duties that subordinate the district authorities, principally in the administration of the course of study, the selection of textbooks,

and the selection of teachers. The principal characteristics of the district organization may be described as follows: The school district is commonly a body corporate, and possesses the usual powers of a corporation for public purposes. It can sue and be sued, contract and be contracted with, and may hold real and personal estate. Annual school meetings are held, in which all qualified voters of the district may participate. The meeting chooses its own officers, elects a board of school trustees, determines the length of the school term, determines whether or not new school buildings shall be erected, and designates the site for the buildings. In most cases the voters fix the local tax levy for the support of the school. The board of trustees elected are the lawful agents of the district and carry out the instructions of the voters in the annual or special meetings. The board usually consists of three members elected one each year for a three-year term. It has general charge of the school property, repairs buildings, furnishes equipment and supplies, appoints teachers, fixes their salaries, and makes whatever rules and regulations may be necessary to govern the schools. Unless a State course of study is provided, it determines what subjects shall be taught in the schools. In most States it is now limited in its selection of teachers to those holding certificates issued by the State or county authorities. The trustees expend the district school funds, and in Illinois, Iowa, Michigan, Nevada, New Mexico, North Dakota, Utah, and Washington they are authorized to levy special school taxes for the support of the schools. This power is granted also to district boards in certain States, notably Delaware and South Carolina, where the county is the unit of organization.

The States organized with the district system are the following: Arizona, Arkansas, Colorado, Idaho, Illinois, Kansas, Minnesota, Missouri, Montana, Nebraska, Nevada, New Mexico, New York, Oklahoma, Oregon, South Dakota, and Wyoming—17 in all. Iowa, Michigan, and Utah have more than one system, with the district system predominating. North Dakota has both the township and the district unit, the larger portion of the State being on the township basis. California, Delaware, Mississippi, South Carolina, Texas, and Washington have semicounty systems with subdistricts in each county corresponding to those in the district system; in these subdistricts much of the control of school affairs rests.

It will be noted that the States on the district basis are all west of the Mississippi River, with the exception of New York, Illinois, and Michigan. In New York and Illinois the system is not so unsatisfactory as in other places because, by legislative enactment and by general consent, practically all of the administration of the instructional work of the school is in the hands of the State and county (or district) superintendents. Illinois also has a township school board

whose functions are almost wholly financial. Michigan has a law permitting the township unit basis. All townships of the upper peninsula and several in the lower peninsula have adopted the township system.

7 The district organization for present-day conditions proves for most parts of the country unsatisfactory in many ways, which may be summarized as follows: (1) It fails to recognize that education is not only a matter of local interest, but a matter of county and State interest. People no longer remain as much as they formerly did in the district in which they were educated or failed to be educated. (2) Under it no rapid and uniform State-wide advancement is possible. (3) It has created too many school districts, some of which are well able to support schools, others are not; in much of the country one-half as many schools would be sufficient to meet the requirement of "a school within walking distance of every home." Great difficulty, however, is experienced in persuading districts to unite into larger consolidated districts, each supporting one school instead of several. This difficulty is due often to jealousy existing between the neighboring districts and to jealousy between school trustees. The movement for consolidation has made little progress in any States except those with county or township systems. (4) With the district system it is often difficult to secure competent trustees. Many trustees are necessary, and they must be residents of the district they represent. Certain districts will contain many men thoroughly competent to serve as school trustees, others will contain none. The district system means that there are in the rural schools practically three times as many trustees as school teachers. To attempt to manage any other business but education on such a basis would seem ridiculous. (5) The cost of maintaining district schools is high in proportion to the cost of other schools and in proportion to the results obtained. (6) With this system, opportunities for high-school education are presented only with great difficulty; therefore country boys and girls are required to go to city schools after completing the work given in the rural schools near their homes, if they are to receive any further education. Only those whose parents can afford to pay tuition, traveling expenses, and usually board are given this opportunity; and few of those educated in the city school ever return to rural occupations. (7) Any adequate supervision of the instructional work in the district school is almost impossible. In practically all States with the district systems county superintendents are employed. The county superintendents must work with as many boards of education as there are separate districts; with the district system the large number of trustees makes his work difficult. (8) In very few States with the district system are assistants to the county superintendents employed; there are no county

educational authorities to employ assistants, or none with enough interest in the school affairs of the entire county to care whether or not assistants should be employed. In the States with the county system such assistants are more plentiful.

Iowa has had an opportunity to compare the district and township systems under similar conditions, as in several instances both exist in the same county. The State superintendent reports that the county superintendents in whose counties the township system is found "declare that the management of the schools is much more efficient and satisfactory than in the townships in the same counties where either the subdistrict system or the rural independent system prevails."

Utah has had an opportunity to compare the district and county system side by side, as both systems exist in the State. In eight counties the management and control of all the schools of the county are in the hands of a single board of education, there being no local school boards. These counties are called "consolidated counties." Five of them have been "consolidated" since 1905. The late Mr. A. C. Nelson, State superintendent of public instruction of Utah from 1900 until his death, in 1913, in his report wrote as follows:

School authorities unite in the opinion that the small rural school district must be replaced by a larger political unit before a county or a State can bring about the best educational results. * * * In the development of a Commonwealth there comes a time when social exigencies require not so much individual as they do representative action. The most thoroughly democratic of us recognize this essential truth. With us in school matters there now exists a necessity for representative action, as there exists a necessity for such action in the construction of good roads, the assessment of property, or in other matters where general efficiency and the general welfare are of overwhelming importance. To-day, in the economy of our growing Commonwealth, there exists a general demand that the work of the public schools should be made more efficient.

The district is interested in the education of the child. The county and the State are also vitally interested. These political units give substantial parts of their revenues for the education of the young. * * * The citizens of the State have a right, nay, it is their duty, to demand that the school fund shall be expended in the most effective and judicious manner. I am convinced that its most judicious expenditure can not be made while there exists a widespread conviction that so large a part of school matters must come under the jurisdiction of the small district.

As referred to above, the education of the child is a function of the county and the State as well as of the district. A district may have—it often has—very meager school advantages. It is uncommon, however, for an entire county to be so situated. * * * With the district unit of organization there may be efficient schools, but there can never be an efficient system of schools. * * *

It has been held by this office * * * that consolidation of small districts would equalize school advantages. It has been stated that such consolidation would result in an economical administration of the schools. There would be a better grade of teachers employed, a stricter enforcement of the compulsory-education law, an adequate supply of textbooks and apparatus, better school buildings, improved sanitary conditions, a fairer distribution of the funds arising from taxation of corporate property,

uniformity in grading the schools, a larger number and better qualified supervisors, uniform length of school term, etc.

Reports from the consolidated districts are proving the truthfulness of the above statements. The superintendent of one of these counties writes: "The tax levy allowed by law under consolidation is smaller than it was before the county was consolidated into one district, yet under consolidation a very material growth has been made without any additional debt being created. From 1905 to 1910 eight modern school buildings were erected at a cost of \$82,000. With better buildings and graded schools, we are able to command a better teaching force. Higher remuneration is offered to teachers who hold State certificates and diplomas. The care that is now exercised in handling the public-school funds is an argument within itself for consolidation."

* * * In my former reports a number of the advantages of consolidation have been pointed out. It seems unnecessary to reiterate these in this report, for consolidation has not only passed the experimental stage in Utah, but *a very large part of our citizens are enthusiastically in favor of it. No consolidated county would return to the small unit system.* The larger unit is superior to it. It makes for economy and efficiency in every department. It is now incumbent upon the school people to make the most of the opportunities which the system makes possible.

THE TOWNSHIP UNIT.

The township unit is the form of organization in the New England States, in New Jersey, Pennsylvania, Indiana, in the larger part of North Dakota, the upper peninsula of Michigan and in a few townships in the lower peninsula, and in a few townships in Iowa. The first State to adopt this system was Indiana, where it has been in existence since 1852. It was adopted in Massachusetts in 1882, in New Hampshire in 1885, in Maine and Ohio in 1892. It was the form of organization in Ohio from 1892 until the present year (1914). It was authorized for upper Michigan by the State legislature in 1891, and for the entire State in 1909. It is authorized in a few other States, but has not been adopted to any extent. In Iowa, Michigan, and North Dakota, the matter is left optional with the voters of each township. Iowa has 24 townships organized on the township basis; Michigan, 147, most of which are in the upper peninsula. The township unit prevails in 45 of the 49 counties of North Dakota.

- 1 The principal feature of the township system or organization is that all schools of the township are under the full charge and control of one school board elected at large by the voters of the entire township.
- 2 The schools are supported by the school funds levied on the entire township and expended by the board, according to the needs of the
- 3 individual schools. In all of the States on the township basis, except the New England States, cities and incorporated towns and villages are set apart as separate independent districts. In the New England States, with a very few exceptions in Vermont and New Hampshire, there are no such separate districts, and all schools, whether in the thickly settled or the sparsely settled portion of the township, are under the control of the same board and supported from the same

funds. The New England board is known as the "town-school committee," the word "town" being used in New England where "township" is used in other States. This board is composed usually of from three to nine members, one-third of whom are elected each year for a three-year term. In the less thickly settled districts, "union districts" are formed for supervisory purposes; the town-school committees of two or more townships uniting to engage a superintendent of schools, but uniting for no other purpose. The appropriation for school purposes is made throughout New England by the voters of the entire township in the annual town meeting. The funds so provided are expended by the township board according to the needs of each school, regardless of its enrollment or location. The board often has full power to establish new schools, and has, as a rule, the power to close existing small schools and assign children to other buildings.

In the other States organized on the township basis, incorporated towns and villages are not included in the township systems. In New Jersey the voters of each township, not including those in independent towns and villages, elect a board of education of three, five, or nine members for three years; in Pennsylvania, a board of five directors for six years. The duties and powers of the New Jersey board are practically the same as those of the New England school committee; the Pennsylvania boards have the additional power of levying special township school taxes. Indiana schools in each township system are under the management of one trustee elected for four years; he has almost absolute control over all school affairs, establishing schools, providing buildings and equipment, employing teachers, and regulating the school work. Each school and the territory it serves is a subdistrict with a director elected by the voters of the subdistrict. This director has little authority, but looks after the immediate needs of the school, as an agent of the trustee.

The rural schools of Iowa are organized under three separate systems, two of which are known as township systems, although quite different, and the third is known in Iowa as the "independent rural-school district" system. There are 24 townships in the State organized as consolidated districts, all schools being under one central board, as in New England. The board consists of three members elected at large by the people for one year, and has full authority over the schools of the township. The second township system, which, in principle, is the district system, consists of a township board made up of "one director from each subdistrict." Each subdistrict represents one schoolhouse. These directors are elected by the voters of their own subdistrict for one year, and each manages and controls the school in his own district independent largely of the other directors. Very little power rests with the township board except the approval

of the expenditures made by each director. The school funds are township funds. A township organized in this way may be divided into "independent rural-school districts," provided the majority of voters in each subdistrict vote in favor of the change. Then each independent district elects three trustees, and manages and supports the schools as they are managed under the ordinary district plan. The extent to which each of these systems is in use in Iowa is as follows: Twenty-four townships have the consolidated township unit with a single board of three directors elected at large in each; 1,097 townships, with 9,322 subdistricts each in charge of a director, have the second system; and 341 townships are divided in 2,898 "independent rural-school districts," each with a local board of three directors. A first definite step toward the county board has been taken by the action of the legislature in 1913, which provided that county superintendents in the future shall be appointed by the presidents of the township boards.

The township unit has proved very satisfactory in thickly settled regions, especially in New England where no independent city and town districts are formed, and where the township is the unit of local taxation and local government in nearly all civil affairs. The boundaries of the New England townships are factors in the success of the township system. They are determined usually by topographical conditions, comprising the settlements best suited for grouping into one system. One great objection to the township unit in other States, particularly in those with the "congressional township," is that the township lines are straight lines, independent of geographical conditions or of the location of the various settlements. Township schools in such townships can seldom be located to the best advantage. The location of schools should be determined by the position of the population and by the roads, mountains, rivers, and other physical features of the country. The township system has been tried and abandoned in several States, in some instances for the district unit; usually, however, for a unit larger than the township. Tennessee and Ohio are examples of States abandoning the township for the county unit.

The magisterial district unit.—The magisterial district is the unit of organization and administration of school affairs in West Virginia, and the more important unit in the semicounty system of Virginia. In both States cities and incorporated towns are, as a rule, independent. In size the magisterial district corresponds nearly to the township, the average district, however, being larger than the ordinary township. In Virginia the average county is composed of 4.4 districts; in West Virginia, of 6.3. The average number of schools in the Virginia district is 18, and in the West Virginia district 15. Virginia has county boards of education, as explained later, composed of the magisterial district boards. Outside of financial duties, the

county boards have little power. Indirectly, any county board is an important factor in the development of the schools, as it may supplement the salary paid to the school superintendent and obtain a more able man than would be obtained otherwise. The county, in practice, is the unit of supervision, the supervisory districts being known as "divisions." In 80 instances the divisions are single counties, in 10 the divisions are composed of 2 counties. The superintendent is called the "division superintendent of schools." West Virginia has no county board of education, but has a county superintendent elected by the people, and in many instances district superintendents in charge of the schools of magisterial districts under the authority of the county superintendent.

The principal features of the organization in West Virginia are as follows: The present system, in essentially the present form, was adopted with the admission of the State in 1863. The last general revision was made in 1908. In each magisterial district a board of education of three members is elected at different times by the people for four years. This board appoints three trustees for each sub-district for a term of three years. The subdistrict trustees appoint teachers, and, under the supervision and control of the district board, furnish supplies and make small repairs. Some 44 cities and towns in the State have secured special legislative acts giving them certain special privileges in the management of school matters within the independent district. County superintendents are elected by the people for four-year terms. The magisterial district boards may appoint district superintendents and in such cases may dispense with trustees and take direct charge of all schools in the district. The schools are supported in part by a State fund distributed to the counties on the basis of school population. This fund is then placed in each county to the credit of the magisterial district boards. The voters of the magisterial district determine whether or not a tax levy shall be assessed; the district board determines the amount of the levy within maximum limits and expends the funds when provided. This board has the general oversight of all schools of the district. All expenditures, however, must be approved by the county superintendent, who is *ex officio* financial secretary for all boards in the county.

THE COUNTY UNIT.

Either the county system, or a semicounty system where the responsibility for the management is divided between the county and the township, magisterial district, or single district, is found in 18 States. This includes Utah, where the county organization exists in 8 counties only of the 27 in the State. The States organized on the county basis are 9 in number: Alabama, Florida, Georgia,

Kentucky, Louisiana, Maryland, North Carolina, Tennessee, and Utah. Those with a semicounty plan are also 9 in number: California, Delaware, Mississippi, Ohio, South Carolina, Texas, Virginia, Washington, and Wisconsin.

In 6 of the 18 States mentioned above as having the county or semicounty organization—Florida, Louisiana, Maryland, North Carolina, Tennessee, and Utah—practically the entire management and control of the schools are in the hands of the county boards. Louisiana has no district boards, with the exception of visiting trustees in comparatively few parishes. Tennessee has district boards elected by the people, but the State law strips them of all powers. Utah, in the counties on the county unit plan, has no local trustees. In Florida, Maryland, and North Carolina district boards are appointed by the county boards, and have no authority except that delegated to them by the boards appointing them.¹ In Georgia and Alabama the power is about evenly divided between the county and the local district board. In Delaware, Mississippi, and South Carolina the balance of power is in the hands of the district trustees. The district board in South Carolina is appointed by the county board, but after appointment is a body corporate and not to any extent responsible to the county board. In Kentucky the "division board" holds the principal power. Wisconsin, in its new organization, retains the old district board, but gives to the new county board oversight of the work of the county superintendent, including the administration of the course of study and the power to organize, alter, or consolidate districts, to examine pupils for common-school diplomas, and to manage the county training school for rural teachers. Ohio retains the township and village boards, dividing the power between them and the county board. The principal features of the organization in each State are given later in this publication.

Several other States have county boards of education with functions limited usually to one thing, such as the management and control of county high schools or special schools, the certification of teachers, or the appointment of county superintendents and supervisors. Further information concerning such States is given later.

The county unit on the whole seems to have the most to commend it. The territory included in the county is usually small enough for the board to keep in touch with the entire county, and it is large enough for the school districts to be arranged to the best advantage, both for the convenience of the pupils and for economic management and support. It is the unit of supervision in 39 States. For efficiency the supervision and administration should be closely united; this is possible in the best way only when the unit of supervision and

¹ The Maryland law gives the local trustees the selection of the "principal" teacher. All assistants are appointed by the county board.

the unit of organization for management are identical. It is true that the county is too large an area for the supervisory unit if no provision is made for assistant supervisors to aid the county superintendent. Under the ideal system, however, with all the schools of the county under one central board, the county superintendent becomes both an administrative officer and a supervisory officer. He becomes the agent of the county board and its executive secretary, in exactly the same manner as the city superintendent is the agent and the executive secretary of the city board. He should have under his direction and control as many assistants as may be required for adequate supervision. Table 1 shows the units of organization and the units of supervision for each State. Maps 1 and 2 show graphically the States with the various units of organization and of supervision indicated.

Another consideration in favor of the county unit is the question of support. The county is the unit of organization in most States for the assessment and collection of taxes for all purposes inside the county except for the support of schools. To make it the unit of school taxation would do away with local district taxes for education, except where local districts desired to supplement the county and State funds; it would equalize the tax rate for the county and distribute the cost for support of the schools over the entire county, so that equal educational opportunities might prevail throughout the county. It would give to the entire county, instead of to a few districts favored by their location, the benefits of the taxes paid by various corporations in the county, such as railroads. It would permit an economical distribution of school buildings and make possible the establishment of high schools available to boys and girls in all parts of the county, without the necessity of living away from home. Special schools not possible under the district system might also be provided, such as industrial schools, parental schools, county schools of agriculture and domestic science, and normal training schools. Twenty States already raise part of their school funds by taxation on the county as a unit.

The tendency toward the county unit is shown by the increasing number of school factors created with the county as a basis. For instance, the county is already the unit of supervision in 39 States; more authority is being given each year to the county superintendents by the State legislatures. Local district trustees are not as a rule able to decide wisely questions concerning the instructional work of the school; therefore State legislation in many States has placed the administration of the course of study and the selection of textbooks and equipment in the hands of the county superintendent, or in those of the State superintendent with the county superintendents acting as his agents. In the last few years, as more attention is being given to the school building itself, particularly in regard to its sani-

tary arrangements, local trustees in several States can no longer erect new buildings without the approval of the county superintendent or of the State superintendent.

As an example of the increasing duties assigned to the county superintendents, Illinois and Indiana may be cited. The duties of the county superintendent in Illinois include the following:

To furnish reports to the State superintendent.

To keep records regarding school affairs in the county, especially financial records concerning the sale of school lands.

To sell township-fund lands, issue certificates of purchase, and perform all other duties relating to such lands.

To register the names of applicants for normal school and university scholarships and to hold examinations for the same.

To have general supervision over the methods of instruction, the course of study, the discipline, government, and general condition of the schools:

To give teachers and school officers directions in the science, art, and methods of teaching, and in regard to the course of study.

To conduct teachers' institutes.

To examine at least once each year all books, accounts, and vouchers of every township treasurer in his county.

To examine all notes, bonds, mortgages, and other evidences of township indebtedness.

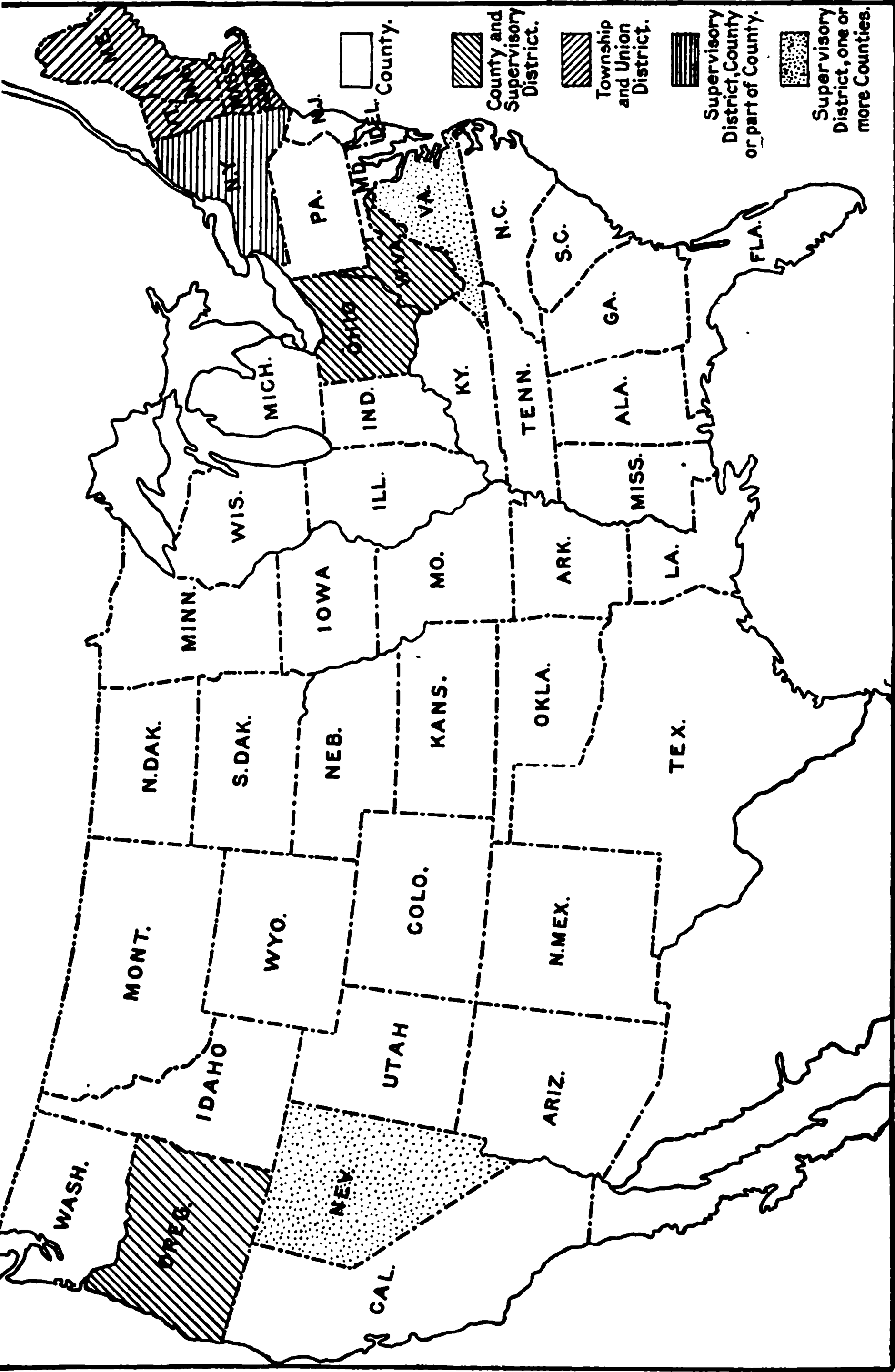
To investigate and determine all matters pertaining to changes in the boundaries of school districts.

To hold meetings at least quarterly for the examination of teachers.

To grant certificates of qualification to teach to such persons as may qualify to receive them.

To apportion the school funds and to notify the presidents of the boards of trustees and clerks of school districts of the amount of money distributed by him to the township treasurer.

The duties of the county superintendent in Indiana include the general supervision of the schools for the purpose of increasing their efficiency by improving the methods of teaching and the general conditions; the enforcement of the use of the course of study adopted by the county board, or to arrange such a course if none has been adopted by the board; the examination of pupils for graduation from the common school branches; the examination of pupils from high schools except those in towns and cities; the examination of teachers and issuing of certificates to teach; the apportionment of the school funds; the conducting of teachers' institutes; the enforcement of all orders of the State superintendent and State board of education; and the decision of all controversies which may arise over school affairs, subject to revision by the State superintendent.



Map No. 2.—Showing the various units of supervision.

There are county educational boards of various kinds in 30 States—boards for the management of the county work, for supervisory purposes, for the examination of teachers, for the selection of textbooks, for the control of special schools and high schools, etc. In Pennsylvania, Wisconsin, and Missouri, local trustees in each county are required by law to meet annually as a county organization for general conference on school affairs, so that there may be a certain degree of uniformity in the schools of the county. In Iowa, Indiana, and Pennsylvania the school directors of each county meet for the purpose of selecting a county superintendent. In 20 States the county has become the unit of taxation in school affairs; this number includes most, but not all, of those on the county unit basis of administration. In the great majority of these 20 States local district taxes are levied, as well as county taxes. West Virginia has made the county superintendent the financial secretary, to keep financial records of all schools in the county. He must countersign all orders issued by the several boards of education before said orders are payable by the school treasurers; in other words, he must approve every expenditure for school purposes in the county.

II. ESSENTIALS OF EXISTING COUNTY SYSTEMS.

The principal features of the existing county systems are given in the following pages. There are included not only the States organized definitely on the county-unit basis of taxation and administration, but also those having a semi-county system, with the administration divided between a county board and local district or township boards.

Alabama.—Present system adopted in 1903. Counties are divided into single school districts. Three trustees are elected in each district for four years by the voters of the district. The county board of education consists of the county superintendent, who is elected by the people for four years, and four others elected for four years by the chairmen of the school district trustees. The board has the general management and control of the schools of the county. The district trustees have the general care of the school property in their district and may nominate teachers. Appointment, however, rests with the county board.

The schools are supported largely by State funds distributed to the various counties, on the basis of school population. To this fund is added in each county the poll tax, and counties may vote a county tax levied on both independent school districts and the rest of the county. The county board of education apportions the total county funds to the districts so as to provide as nearly as practicable school

terms of equal duration, first apportioning to the independent districts their school population per capita share. No local district taxes may be levied.

California.—The county board of education is composed of the county superintendent and four others, the majority of whom must be experienced teachers, appointed by the county board of supervisors. This board is given control of the examination of teachers in the county and the granting of teacher's certificates. It prescribes the course of study and adopts library and supplemental books for school uses. It also grants diplomas for graduation from the elementary schools. The county superintendent has important functions. He is elected by the people for a two-year term and has general supervision of the schools of the county, apportions the State and county funds, acts as secretary of the county board, and has the approval of the plans for all new school buildings. He may require the trustees to make reports when he deems such reports necessary. The powers and duties delegated to the county board and to the county superintendent centralize the control of the school affairs in county officials rather than in local officials.

The schools are supported largely by State and county funds. The State fund is apportioned to the counties, \$250 for every teacher employed, the rest on the basis of average daily attendance. The State and county funds in each county are apportioned by the county superintendent; \$550 to every school district for every teacher employed, the remainder on average daily attendance. Local districts may levy a district tax.

Delaware.—Present system adopted in 1898. The "county school commissions" are each composed of three members appointed by the governor for three years. The boards are given the general supervision of the property of the public schools of the county, and act as advisors to the county superintendents, who are also appointed by the governor. Complaints against school officials and teachers are heard by the boards. They act also as sanitary commissions and may condemn school buildings. School district boundaries are fixed by the county boards. The supervision and control of the school or schools of each district are in the hands of a school committee of three persons elected one each year for three years. The committees have in large measure the control of their schools, making assessments for their support, providing buildings, equipment, and teachers, and making rules and regulations governing the school.

The schools are supported by State funds apportioned to the districts on the basis of the number of teachers employed, and by local district taxes. There are no county school funds.

Florida.—Present system adopted in 1885. City as well as county schools are under the administration and supervision of the county officials. Each county is divided into three divisions, called "county

school board districts," as nearly equal as possible in population. In each district one person is elected by the people for two years as a member of the county board of public instruction. The board has full control and management of all schools of the county. It fixes the county school tax, appoints teachers, and fixes salaries. It locates, builds, and equips schools wherever it is deemed necessary. A school district may be a single school and its territory, or a city and its schools. Any district may become a "special-tax school district" and elect a board of trustees of three members for two years. In districts that are not special-tax districts a local supervisor is appointed by the county board from among the voters of the district. These trustees and supervisors have no control of the schools, however; they are the agents of the people before the county board. The county superintendents are elected by the people for four-year terms. The schools are supported by State funds apportioned to the counties on the basis of the average daily attendance and by county funds raised by taxation on the entire county. Both funds, together with the income from minor provisions, are disbursed by the county board of public instruction for the maintenance and support of the public schools. School districts may, by majority vote, levy an additional tax. The county board within constitutional limits fixes the county school tax.

Georgia.—Present system adopted in 1887. The county board of education is composed of five members and serves a four-year term. The members are appointed by the county grand jury, a body of 18 men determined by lot by 3 jury commissioners selected by the judge of the superior court.¹ The county board divides the county into subdistricts, and each subdistrict elects local boards of three school trustees, each for three years. The local board has general oversight of the school and nominates teachers, whom the county board must appoint, unless proper objections are raised. The county board approves all expenditures, provides buildings and equipment, fixes the teachers' salaries, but has no power to levy taxes. This power rests with the voters of the county or of a district. In 15 counties out of 146 in the State, there are no independent districts, and city schools as well as county schools are under the control of the county board.

The county superintendents of schools are elected by popular vote for four-year terms. Previous to 1909 the law provided for their appointment by the county boards of education. The schools are supported largely by State funds distributed to the various counties and to the independent municipalities on the basis of the school population. Counties may supplement the State funds by levying a county tax, provided a two-thirds vote in its favor is obtained at a

¹ In a few counties the boards are elected by the people. In such counties the boards appoint the county superintendent.

special election. Independent incorporated town districts are not included in the county tax district without the consent of the municipal authorities. The State and county funds are disbursed by the county board of education. Local districts may also vote a supplementary school tax and by so doing become in large measure independent of the county system. The local board of trustees has then practically full control of school affairs, receiving from the county board or State department the district's proportionate share of the State and county funds.

Kentucky.—Present system adopted in 1908. Each county is divided into "educational divisions," and these divisions are in turn divided into single school subdistricts. The number of educational divisions in a county is four, six, or eight. A subdistrict trustee is elected in each subdistrict. These trustees, together with the county superintendent, who is elected by popular vote, form the division board of school trustees. The chairmen of the division boards and the county superintendent form the county board of education. The trustee has general supervision of the work of the school and of the school property. He recommends a teacher to be appointed by the division board. He reports the needs of the school to the division board, and that board refers the report with its recommendation to the county board. The county board provides buildings and equipment and expends the school funds.

The schools are supported by State and county funds. The State funds are distributed to the counties according to school population. The county board of education estimates the amount of money required for the schools; the levy is made by the fiscal court in accordance with these estimates. The tax is collected by the county sheriff and turned over to the county superintendent, who acts as treasurer of the county board. The State and county funds are expended by the county boards "as in their judgment the needs of the individual schools demand." Subdistricts may vote a special tax, the tax when so voted being collected by the county sheriff and expended by the county board for the benefit of the subdistrict voting the tax.

Louisiana.—Present system adopted in 1870. The parish (county) board consists of one member elected in each police jury ward for six years and is a continuous board. It has full control over all schools, locating, building, and equipping schoolhouses, employing teachers, fixing salaries, and making rules and regulations for the conduct of the schools. A parish tax may be levied by the voters of the parish. The parish is divided by the parish board into school districts for administration purposes, and each of these districts may vote a special tax. The parish superintendent is appointed for a four-year term by the parish board. The schools are supported

from a State school fund of 1 $\frac{13}{100}$ mills tax, divided among the parishes on the basis of the number of children between the ages of 6 and 18, and parish funds resulting from a minimum parish tax of 3 mills. Both funds are expended by the parish board according to the needs of the schools.

Maryland.—Present system adopted in 1865. The city of Baltimore is independent. The schools of all other cities in the State are parts of the county systems. The county board of education is a continuing board, composed of six members in the larger counties and of three in the others. The members are appointed by the governor of the State, each for six years. The board has complete control of the schools. The counties are divided into school districts, and in each a board of district school trustees consisting of three persons is appointed by the county board. The trustees have the general oversight of the school property and employ, subject to the approval of the county board, a "principal" teacher. When assistant teachers are required, they are appointed by the county board.

The board appoints the county superintendent, who acts as its secretary and treasurer. His term is two years. The schools are supported by a State tax distributed to the various counties on the basis of school population and such county funds as are obtained from a county tax levied by the county commissioners to raise the amount designated as necessary by the county school board. Local districts are not authorized to tax themselves; supplementary funds, if desired in the local district, must be raised by subscription.

Mississippi.—Present system adopted in 1903. The county board is composed of the county superintendent, who is elected by the people, and five persons appointed for four years by him. The board makes the boundaries for school districts, locates the schools and fixes the time for opening schools, but has practically no other power. Each district elects three trustees, one each year for three years. These trustees have control of the schools, providing buildings and equipment, employing teachers, and managing the school. The county superintendent is a large factor in the management of the schools, as he makes the contract with the teacher engaged by the trustees and fixes the salary in accordance with the provisions of the State laws. He also is authorized to enforce the course of study adopted by the board of education and the uniform textbooks adopted for the county, to examine the teachers and visit their schools and supervise their work. The schools are supported largely by State funds distributed to the counties and independent districts on the basis of the number of educable children. Counties may levy a tax upon all taxable property outside the limits of the separate school districts. This fund is divided among the school districts on the basis of the number of educable children and the ability and experience of the

teachers. Special districts are allowed also to raise additional school funds by taxation. Any district containing not less than 12 square miles may levy taxes for support of its schools. Any district containing not less than 16 square miles may issue bonds for school buildings and equipment.

North Carolina.—Present system adopted in 1900. The State legislature appoints a board of education of three persons for each county, one selected every second year for a six-year term. This board has full control of the schools. It appoints a school committee of three persons for each school district in the county, to serve for two years. This district may be a township district or a single district. These committees have the general management of the schools, subject to the approval of the county board. They may employ teachers, but salaries are fixed by the county board. County superintendents are selected by the county board for two-year terms and are the executive officers of the boards. The schools are supported by State funds, distributed on the basis of school population after a certain portion is deducted for special purposes, and by county funds raised by taxation on real and personal property and from a general poll tax. The county fund is the principal fund and is apportioned on the basis of teachers' salaries, after deducting the amount needed for building purposes among the various districts so as to give as nearly as possible the same length of term to each school of each race. Special taxes may be voted for township high schools in any township, also for any school purposes in incorporated cities and towns. Special school districts may be formed by the county board upon request of one-fourth of the freeholders in the district, and such district by vote of the majority of the electors may vote a special tax.

Ohio.—Present system adopted in 1914. The county board of education is composed of five persons, elected by the presidents of the various village and rural boards of education; the "county district" in Ohio includes both "village" districts and "rural" districts. All city districts are exempted from the administration of the county board of education. If the population of a village is 3,000 or over, it may be made an independent district by vote of its board of education. If its population is less than 1,500, it need not have a separate board, but may be a part of an adjoining rural district, and with it be under the control of one board. The rural district is usually a township, and has a board of education of five members elected for four years at large at the same time that other township officers are elected.

The presidents of these village and township boards elected the first county boards in June, 1914—the board going into office July 15. The term of one member expires each year. The county boards

appoint the county superintendents, who act as secretaries and executive officers of the boards and have many specific duties in relation to the supervision of the rural and village schools, or all schools of the county district. The county boards are authorized to redistrict their counties, proceeding without regard to township lines where they see fit. They are required to divide their counties into supervisory districts, no district containing less than 20 nor more than 60 teachers. In each supervisory district so formed, a district superintendent is appointed by the presidents of the village and rural boards included in the supervisory district, unless there are less than four boards of education in the district, in which case the boards act in a joint meeting of the boards. The actual supervision rests with these officers. They are required to meet monthly with the county superintendents for advice on matters of school efficiency. The county superintendents have direct supervision of the county normal schools in their counties; these schools are located in connection with first-grade high schools.

The schools are supported from State and township or village district funds. The State common-school fund is apportioned to the various counties on the basis of school population. These funds are then reapportioned in the county to local school districts, \$30 to each teacher employed, the remainder in proportion to the average daily attendance of pupils.

South Carolina.—Present system adopted in 1868. The county board of education is composed of the county superintendent, who is elected by the people, and two others appointed by the State board of education for two years. The county board is an advisory board to the county superintendent. It divides the county into school districts and appoints in each a board of trustees of three members for two years. The district boards have almost complete control of their schools, expending the school funds, providing houses and equipment, appointing teachers, fixing salaries, and making general school rules and regulations. The district board is a body corporate. The schools are supported by relatively small State funds, distributed among the counties for special purposes, and by county and local district funds. In each county an annual tax of 3 mills on the dollar is levied and apportioned among the school districts of the county in proportion to the number of children enrolled in the public schools. These funds are then expended by the local board of trustees upon warrants approved by the county superintendent of education. School districts may levy an additional tax upon general election of the voters of the district. Independent city districts are included with the rest of the county as a tax unit.

Tennessee.—Present system adopted in 1907. Each county is divided by the county court into five divisions. In each division

one person is elected for two years as a member of the county board of education. This board of five persons has almost absolute control of all schools of the county, except those in independent city districts. It selects teachers, fixes salaries, erects buildings, controls expenditures, and manages the schools and the school property. An advisory board of three members is elected in each school district. It may make recommendations to the county board, but it has no authority. A few counties of the State are not organized on the county basis. County superintendents are appointed for two-year terms by the county courts.

The public schools are supported by State and county funds. The State educational fund comprises $33\frac{1}{3}$ per cent of the gross revenue of the State; 79 per cent of the total fund is available for public elementary and secondary schools. Of the total education fund, 61 per cent is distributed to the various counties on the basis of school population; 10 per cent is set aside as an equalizing fund to assist the weaker counties in consolidation, supervision, and industrial work; 8 per cent is given to high schools.

The county funds consist of moneys received from the State education fund, from the proceeds of a poll tax, and a $1\frac{1}{2}$ mill tax on all taxable property. An additional county tax may be levied by majority vote of the electors. The county funds are divided between the independent incorporated school districts and the rest of the county on the basis of school population. The expenditure of the county funds is in the hands of the county board.

Texas.—The law provides for a board of county school trustees, to be composed of five members elected at large from the county, with the county superintendent as its executive secretary. It is primarily a high-school board, but it is given other functions besides the management and control of the county high schools. It is instructed to classify all schools in the county as “primary, intermediate, and high schools” and to prescribe the course of study for all of these public schools. In its classification it is authorized to limit the number of grades in any school; for instance, it may classify an intermediate school as “an intermediate school of five grades” or “an intermediate school of six grades.” The same board, with the consent of the district trustees, may establish consolidated schools with high-school departments. To this board of county trustees is given the function of apportioning the State and county school funds.

The schools are supported by State, county, and local funds, the principal support coming from the State and local districts. State funds are apportioned to the counties, and with the county funds reapportioned by the county trustees on the basis of school population.

Utah.—Present system adopted in 1905. County organization is optional with the voters in counties with a school population of 2,500 children or over. Seven counties have adopted it. In each of them a county board of education is elected. The county board elects a county superintendent and has full control of all schools of the county. There are five members of the board, one from each of the five representative precincts of the county. Half of them are elected every two years for a four-year term. There are no district or subdistrict boards. One county is organized as two districts, approximately one-half the county being in each. Each has a single board of education and a superintendent. The schools in the county system are supported by a State tax prorated to the counties on the basis of school population, and a county tax for maintenance and support levied by the county taxing authorities, the amount, however, within legal limits, being fixed by the county school committee. The funds are expended by the county boards in their discretion. Funds for building purposes are obtained by special taxes levied upon a majority vote of the electors of the county.

Virginia.—Present system adopted in 1871. In each county a "school trustee electoral board" composed of the division superintendent of schools, the attorney for the Commonwealth, and a third person selected by the county judge, appoints three trustees for each magisterial district, one each year, to serve for three years. These trustees, together with the division superintendent, form the county board of education, which is charged with the duty of distributing the county funds to the magisterial districts. The district trustees expend the funds, provide school buildings, employ teachers, fix salaries, and make rules and regulations for the school. The district may be divided by the trustees into subdistricts. Each subdistrict may elect three directors. The directors have no power except to represent the people before the trustees.

The "division" superintendents are appointed for four-year terms by the State board of education. A "division" is a supervisory district which may be the territory included in an incorporated city, or a county, or a combination of counties. In 80 instances the county is the division; 20 other counties constitute 10 divisions.

The schools are supported from State, county, and magisterial district funds. The State funds are apportioned to the cities and counties on the basis of school population after approximately one-fifth has been deducted for special funds. The county tax is levied by the county supervisors to raise as nearly as possible the amount recommended by the county board of education. These funds are divided between the magisterial districts and expended by the district trustees. The basis of apportionment to the several districts is

with "due regard to maintaining as far as practicable, a uniform term throughout all of the districts."

Washington.—The county board of education, as provided by the State legislature, is a professional board and consists of the county superintendent and four others appointed by him. It is authorized to grade the eighth-grade examinations; to adopt textbooks for the entire county; to prepare teachers' manuals, courses of study, and rules and regulations for circulating libraries; and to adopt such rules and regulations concerning the schools of the county as are not inconsistent with the State laws or the regulations of the State board of education. The county superintendent is given large powers. The law defines him as an "administrative officer." He is elected for two years. He has the supervision of the work of common schools of his county, enforces the course of study, enforces the rules and regulations required in the examination of teachers, and conducts the examinations, holds teachers' institutes and county meetings of school directors, suspends teachers for neglect of duty, enforces the compulsory education law, may require reports of school directors and teachers, and approves the plans for new school buildings. In practice, he controls the estimate of expenses in each district and has much influence in the selection of teachers. The fact that he is given by law so much power directly, and indirectly through the county board, a board of his own selection, places the management of the county schools largely in his hands.

The schools are supported from State, county, and local funds. The State funds are apportioned to the counties on the basis of total days of attendance and with the county funds are apportioned to the districts, one-third in proportion to the number of teachers employed and two-thirds in proportion to the total number of days of attendance.

Wisconsin.—Present system adopted in 1913. The county board of education is composed of five members, elected for five years, one term expiring each year. The county superintendent is elected by the people for a two-year term. The superintendent attends all meetings of the county board in an advisory capacity, but has no vote. The county board has general oversight of the work of the county superintendent and his assistants, requiring whatever reports of them it may deem necessary. It fixes the salary of the superintendent and appoints and fixes the salary of his assistants. It has power to change the boundaries of school districts, and to consolidate schools. It determines the amount of county funds necessary to pay the salaries and necessary expenses of the superintendent's office and of the board itself, which amount is levied by the proper authorities in the county tax. The county supervisors are authorized to give the county boards full control of the county training schools for

teachers. The immediate management and control of the individual public schools rests with the local district trustees. Teachers are appointed by the trustees, but receive their certification from the State or county superintendent. The schools are supported by State and local district funds. County funds exist only for special county schools and for the expenses of the county board and the office of the county superintendent. The State funds are distributed on the basis of school population (4 to 20 years of age); special State funds are available for special purposes.

County boards in other States.—County education boards of various kinds are found in several other States. Some of these have considerable power, particularly in the administration of the instructional work of the school; others have but one function, such as the examination of teachers, the selection of textbooks, the control of high schools, or the control of special schools. Minnesota has county boards for unorganized territory, with full charge of all schools in such territory. Oklahoma, Texas, Kansas, and Michigan have county boards of examiners that have as their sole function the examination of teachers. Michigan, Montana, Nevada, North Dakota, Oregon, Colorado, and others have county boards in charge of county high schools or special county schools, such as the schools of agriculture, manual training, and domestic economy in Michigan. Oregon has a county board of examiners to grade pupils' examinations for graduation from the eighth grade in the county schools. Missouri, Iowa, and South Dakota are among the States having special county boards for the selection of textbooks. In Illinois the county civil authorities have certain school duties, particularly the examination and approval of the financial report of the county superintendent, who is required to submit to them quarterly a statement of all expenditures for the support of his office. Assistant county superintendents must be authorized by this board, and the county superintendent's bond is executed by the board. The board has power to remove the county superintendent for good and sufficient reasons and to fill a vacancy in the county superintendency at any time that one may occur, the person so selected to serve until the next regular election.

Indiana and Oregon have county boards with powers and duties that cover several phases of school work. They are indicated below.

Indiana.—A county board of education is provided, by legal enactment, to consist of the county superintendent of schools with the school trustee from each township and the chairman of the board of trustees of each town and city district. The board is required to meet semiannually with the county superintendent as chairman. It "shall consider the general needs of the schools and school prop-

erty" and equipment. Any "change of textbooks shall be determined by such board," and the board has under its control the care and management of township libraries. By a decision of the State department of education the board "may adopt rules and regulations for the government of the schools of the county." Many important duties and powers are given to the county superintendent; these are enumerated elsewhere in this bulletin. The county superintendent is selected not by the full county board, but by a meeting of the township trustees.

Oregon.—There are in the State three separate county boards whose functions are part of the educational work of the county. There is a *county high-school board* consisting of the county judge, the county commissioners, the county treasurer, and the county superintendent; a *county board of examiners* for eighth-grade graduation composed of the county superintendent and four others selected by him; and a *county educational board*. The last-mentioned board, which is provided only for counties with 60 or more school districts, is composed of the county superintendent and four others appointed by him for four-year terms. Its duties are to divide the county into supervisory districts containing from 20 to 50 school districts and to employ a supervisor of schools for each district. It makes the necessary rules and regulations concerning the work of these supervisors. The county educational board is authorized also to act as an advisory board to the county superintendent in all things connected with his work.

TABLE 1.—*Rural school supervision.*¹

State.	Unit of supervision.				Term in years.
Alabama.....	County.....	67	County superintendents.....	By people.....	4
Arizona.....	District.....	14	do.....	do.....	2
Arkansas.....	do.....	15	do.....	do.....	2
California.....	District-county.....	58	do.....	do.....	4
Colorado.....	District.....	62	do.....	do.....	2
Connecticut.....	Township.....	44	City and town superintendents.....	By local school board.....	3
Delaware.....	District-county.....	43	Superintendents (for 97 townships).....	By State board of education.....	1
Florida.....	County.....	8	County superintendents.....	By governor.....	2
Georgia.....	County.....	47	do.....	By people.....	4
Idaho.....	District.....	146	do.....	By people or county board.....	4
Illinois.....	do.....	27	do.....	By people.....	2
Indiana.....	Township.....	102	do.....	do.....	4
Iowa.....	District and township.....	92	do.....	By county board of education.....	4
Kansas.....	District.....	90	do.....	By presidents of township boards.....	2
Kentucky.....	County.....	106	do.....	do.....	2
Louisiana.....	Parish.....	119	do.....	do.....	4
Maine.....	Township.....	60	do.....	do.....	4
Maryland.....	County.....	313	do.....	do.....	1
Massachusetts.....	Township.....	74	do.....	do.....	1
Michigan.....	County.....	23	County school commissioners.....	By people.....	2
Minnesota.....	District.....	110	do.....	By people.....	1
Mississippi.....	District-county.....	79	County superintendents.....	By people.....	3
Missouri.....	District.....	114	do.....	do.....	4
Montana.....	do.....	29	do.....	do.....	4
Nebraska.....	do.....	92	do.....	do.....	2

¹ City and town superintendents in New England are included, as their territory includes the entire township. Except in the New England States and in Delaware, Florida, and the territory it serves; by "county-district," both the county and single district, with the balance of power in the territory it serves.

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are townships.

TABLE 1.—*Rural school supervision—Continued.*

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TABLE 2.—States with a county or semicounty system.

States.	County board.			School district ¹ boards.			Which board has principal power in—					
	Members.	Term (years).	Title.	How appointed.	Members.	Term (years).	Title.	How appointed.	Providing and building equipment.	Employing teachers.	Management and control of school.	Administration of course of study.
Alabama.....	5	4	County board of education.	County superintendent.	3	4	District trustees	Elected by people.	County board...	District board...	County board...	County board.
California.....	5	2	.....do.....	.....do.....	3	3	School directors	.....do.....	District board...	.....do.....	District board...	Do.
Delaware.....	3	3	County school commissioners.	.....do.....	3	3	School committees.	.....do.....	.....do.....	.....do.....	.....do.....	District board.
Florida.....	3	2	County board of public instruction.	Elected by people, 1 from each "county school board district."	1	2	Supervisor.....	Appointed by county board	County board...	County board...	County board...	County board.
Georgia.....	5	4	County board of education.	Appointed by county grand jury of 18 persons selected by lot from about 250 jurors, elected in a few counties.	3	3	School trustees.	.....do.....	.....do.....	District board...	District board...	Do.
Kentucky.....	(2)	2	.....do.....	County superintendent elected by people and the chairmen of "division boards"; each school district elects 1 trustee; these trustees together form the division board.	14	2	Division board.	Composed of subdistrict trustees.	.....do.....	Division board.	Division board.	Do.

¹ The rural "district" usually contains one school.

² A average number.

³ Five, seven, or nine members.

TABLE 2.—States with a county or semicounty system—Continued.

County board				School district boards.				Which board has principal power in—			
States.	Members.	Title.	How appointed.	Members.	Term (years).	Title.	How appointed.	Providing and building equipment.	Employing teachers.	Management and control of school.	Administration of course of study.
Louisiana.....	18	Parish school board.	Elected by people. 1	.....	.....	None ¹.....	.....	Parish board....	Parish board....	Parish board....	Parish board.
Maryland.....	3, 6	Board of county school commissioners.	Appointed by governor.	3	2	District school trustees.	Appointed by county board.	County board....	District board....	County board....	County board.
Mississippi.....	7	County school board.	County superintendent.	3	3	District trustees	Elected by people.	District board....	.....do.....	District board....	Do.
North Carolina.	3	County board of education.		3	2	School committee.	Appointed by county board.	County board....	.....do.....	County board....	Do.
Ohio.....	5	.....do.....		5	4	Rural (township) board of education; village board of education.	Elected by people.	Rural or village board.	Rural or village board.	Rural or village board.	Do.
South Carolina.	3	.....do.....		3	2	District trustees	Appointed by county board.	District board....	District board....	District board....	Do.
Tennessee.....	5	.....do.....		3	2	Advisory board	Elected by people.	County board....	County board....	County board....	Do.
Texas.....	5	County school trustees.	Elected by people ...	3	2	School trustees.	.....do.....	District board....	District board....	District board....	Do.
Utah ²	5	.....do.....	Elected by people, 1 from each representative precinct.	.....	.....	None.....	.....	County board....	County board....	County board....	Do.

Virginia.....	3	3	County board of education.	Appointed by "school trustee electoral board," composed of the division super- intendent, the Com- monwealth attor- ney, and a third per- son selected by the county judge.	3	3	Magisterial dis- trict trustees.	Appointed— members of county board.	Magisterial dis- trict board.	Magisterial dis- trict board.	Magisterial dis- trict board.
Washington....	5	2	.....do.....	County superintendent elected by peo- ple; 4 others appoint- ed by him.	3	3	School trustees.	Elected by peo- ple.	District board...	District board...	County board.
Wisconsin.....	5	5	.....do.....	Elected, 1 each year...	3	3	District trustees	.....do.....	.....do.....	.....do.....	Do.

¹ Parish boards may appoint "visiting trustees" and have done so in some parts of the State. ² County organization in 8 counties only.

III. HOW THE COUNTY ORGANIZATION IS BROUGHT ABOUT.

The question of the manner in which the adoption of the county system may be brought about is of importance. It must come, of course, from legislative enactments. This may require the county organization for the entire State or may leave its adoption to the option of each county. Both plans have been tried, although in nearly all States the county system has been forced upon the entire State at once.

Utah's law, passed in 1905, is permissive, and only counties of over 2,500 school population may adopt it. At the present time eight counties of the 27 in the State are organized as county districts. Other counties would organize on the county basis, but are prevented by the law itself. The late Mr. Nelson, State superintendent of schools from 1900 until his death in 1913, said in 1912:

Seven years ago a law was enacted providing for the consolidation of small school districts into larger units of organization. Seven of our 27 counties have already taken advantage of the benefits of this comparatively recent measure, viz, Cache, Box Elder, Weber, Morgan, Davis, Salt Lake, and Sevier, and several other counties would have followed the example of these had they not been restricted by the law itself. At the present time there are two conditions which militate against consolidation. One of these lies in the population requirement, the other in the inability of the school board to levy a high-school tax in consolidated districts of the first class.

The law as it now stands says:

In each county of this State where a school district therein, outside of the limits of cities of the first and the second class, shall comprise a school population of more than 2,500 children, over 6 and under 18 years of age, as shall appear from the last enumeration reported from the office of the county superintendent of schools, or of more than 2,500 school population, shall be known as a county school district of the first class.

In my judgment, it is not nearly so important that there shall be at least 2,500 school children within the district or the county, as the case may be, as it is that the district or the county shall have the added educational opportunities accruing from consolidation, if it so desires. I recommend that the law be changed so that districts of the first class may be organized regardless of the school population, and that whenever a majority of the resident taxpayers of the county or district to be consolidated petition the county commissioners to organize a school district of the first class, it shall be the duty of the commissioners to effect such organization.

The other conditions now operating against consolidation were brought about by the abrogation of the former high-school law. When the present high-school law was passed by the last legislature, all of the former high-school law was repealed. Under the provisions of the former law, school boards of consolidated districts of the first class were empowered to levy a tax of 5 mills for high-school purposes. As this taxing power was taken from the boards, some counties refused to consolidate their school districts, as it was obvious that high schools could not be maintained without a local tax. In fact, if sparsely settled counties having but little corporate property should consolidate their districts, they would find it practically impossible to maintain even their elementary schools, as the law confers on the boards of education the authority to levy only $5\frac{1}{2}$ mills for their maintenance.

In addition, therefore, to changing the present law so that a district or county, as the case may be, may become a consolidated district of the first class regardless of

its population, I recommend that the boards of education in these districts be given authority to levy a tax of $7\frac{1}{2}$ mills for the maintenance of their elementary schools, and one-half of 1 per cent for the maintenance of their high schools.

The adoption of the county plan in Tennessee was gradual. Previous to 1903 the State was organized on the district-unit basis. In that year a change was made from the district to the township (magisterial district) unit. This paved the way for the adoption of the county unit, the township not proving generally satisfactory. However, it convinced many of the advantages of an organization upon a unit larger than the district. One county (Montgomery) at that time (1903) was put upon the county basis by special enactment. In 1905 a few other counties by their own request were also put upon the county basis. In 1907 a general law for the entire State was adopted, putting all counties on the county basis, with several exceptions (approximately 17 counties out of the 99 in the State) in which strong opposition arose. Since 1907 all but four of these have come under the county plan, usually upon their own request.

The campaign with the State legislature for the adoption of the county system was carried on quietly by a body of the leading educators of the State. It was thought best to create as little general discussion throughout the State as possible, and publicity was not invited on account of the opposition certain to arise.

In other States other methods of creating sentiment in the legislative bodies have been tried. The recent campaigns in Wisconsin and Ohio may be cited as examples.

The immediate campaign that resulted in the adoption of the county system in Wisconsin followed a growing sentiment among the educational forces of the State that a change in organization was necessary before rapid and uniform improvement in rural education could come about. This necessity for change was voiced by Mr. C. P. Cary, the State superintendent of public instruction, in his biennial report issued in 1908. In this report he is especially concerned with the method of selecting county superintendents; and after an able statement of the advantages of a system by which persons would be selected on account of their professional training and special fitness and not on account of their political strength he advocated a county board of education as the appointing body.

He says:

Therefore, it is to be hoped that the next legislature will provide for the election of county boards of education, such boards to be elected by the people. Such boards of education should select the county superintendents, fix their salaries, provide necessary clerk hire, audit the expense accounts of the superintendents, and do such other work as the legislature after careful consideration may deem proper to place in their hands.

In 1910 the State superintendent appointed "a committee of fifteen" to study the condition of the common schools of the State, in hope that as a result of its work, public attention would become centered more upon the rural schools. The committee was divided into five subcommittees; one of these, the subcommittee on consolidation, prepared a report which was printed by the State department of public instruction, recommending a county board of education to have full power over the changing of district boundaries, the forming of larger districts out of smaller ones so that consolidated schools might be established, and full power to close schools when the attendance fell below a certain point. This committee mentioned only those duties that might be given to a county board relative to the movement for consolidation.

In 1912 an investigation in regard to the management of rural schools and the methods of instruction was made under the auspices of the State board of public affairs by the training school for public service of the New York Bureau of Municipal Research. The report of this State board shows what is probably true in other States organized on the district basis:

1. That the business management of the rural school is uneconomical and often unintelligent.

2. That the financial accounts of the schools are very often not accurate, and in several instances show irregularities which suggest dishonesty on the part of school treasurers or boards of trustees.

3. That school buildings, grounds, and equipment are unsuited to school purposes, unattractive, and often unsanitary.

4. That school trustees have no "standard" by which to judge the prospective teacher whom they are about to engage.

5. That few professionally trained teachers are employed in rural schools, and methods of teaching are crude.

6. That there is practically no supervision on the part of the county superintendents.

The findings were a surprise to the great majority of the people in the State, even to those who considered themselves familiar with rural education. It resulted in the introduction of many bills in the legislature to remedy the unsatisfactory conditions found.

The bill which received principal attention, however, was the one introduced by the State board of public affairs, proposing a county system quite similar to that suggested in the outline given in the introduction of this bulletin. The other bills were introduced by various persons who desired to find some solution of the difficulties in the way of progress in rural education without changing radically the existing district system. Particular opposition arose to the proposal to make the county superintendent an appointive office. Part of this opposition was from county superintendents who desired to remain political officers, part from school patrons who believed the county schools should be under the supervision of local men in

whose selection they should have a direct voice, and part on account of a requirement in the State constitution for an "elected county superintendent." It was proposed to avoid the latter difficulty by doing away with the title "county superintendent" and using "county school commissioner" or "supervisor" instead.

As a result of this opposition the passage of the bill of the State board of public affairs was delayed from early in the year until near the end of August; and it was secured then only after many changes in the form of compromises had been made. Under the law as finally passed the balance of power in the control and management of the schools rests with the local districts, and the office of the county superintendent is still elective. A county board of education is provided; the powers and duties conferred upon it are stated elsewhere.¹ They include authority over the county superintendent and his work.

The Ohio campaign came as an immediate result of the report of the State school survey commission to study the needs of education in Ohio, appointed by the governor under authorization of the State legislature in an act approved in March, 1913. The recommendations of the commission were enacted into law by a special session of the legislature in February, 1914, about 10 months elapsing between the appointment of the commission and the adoption of its recommendations into State school laws.

As the work of the survey neared completion the governor of the State issued a proclamation suggesting that Friday, November 14, be observed as *School Survey Day*, and that a meeting be held in every schoolhouse in the State on the afternoon or evening of that day. More than 6,000 such meetings were held. A pamphlet issued by the State department of public instruction sent to each school contained a suggestive program for the evening. It contained also the governor's proclamation, a brief history of education in Ohio, and a statement relating to the survey. These three subjects were discussed at the meetings, and delegates were appointed to a State educational congress called by the governor and held at Columbus on December 5 and 6.

It is estimated that 3,000 delegates attended this State educational congress. Printed preliminary reports of the commission were distributed at the meeting; also the commission's recommendations for revised legislation in the interest of school affairs. The preliminary report was discussed briefly by the secretary of the commission, who served as director of the survey. The recommendations were presented by the State superintendent of public instruction and discussed by the governor of the State, a representative of the United States Bureau of Education, the secretary of the National Society

¹ See p. 32.

for the Promotion of Industrial Training, and the director of the training school for public service of the New York Bureau of Municipal Research. The latter organization had furnished the director of the survey and much of the funds for the work. The meeting was then thrown open for general discussion. At the close of the second day's session a vote was taken upon the question of indorsing the recommendations of the commission. Approximately 95 per cent of those present voted in favor of the indorsement. A special meeting of the State legislature was called by the governor. The legislature met in January and adjourned after a three weeks' session, in February, having passed 10 new school laws, which amount practically to a new school code for the State. They include almost every recommendation of the Ohio School Survey Commission. The law went into effect in August, 1914.

IV. SUCCESS OF THE COUNTY-UNIT PLAN.

T. H. Harris, Louisiana State superintendent of public instruction, writes that Louisiana after many years of the county organization is perfectly satisfied. "A suggestion to change the system here would receive no consideration whatever." He states that the satisfaction is due to the following features of the system as it is in his State:

- ✓ 1. A small board for the management of all the schools in a county.
2. The board elects the county superintendent. This keeps the office out of politics and insures the selection of a competent man.
3. Removes unwise local influences. Questions are settled upon their merits and not at the wirepulling of men of local influence.
4. Teachers are selected upon their merits and not because they are related to local board members.
5. Promotes the consolidation of country schools. The county board abandons schools and establishes new schools as the needs of the children dictate; there are no local board members to consent, no jobs to lose.
6. Makes supervision possible. The superintendent can not supervise efficiently the work of the schools if he is required to keep several hundred local board members satisfied.
7. It injects business methods into the management of the schools. With no axes to grind, no favorites to reward, a small board in charge of all the schools of the county does its best to provide the best possible schools for all the children.

A. C. Matheson, State superintendent of public instruction of Utah, writes that the benefits of the county unit as proven in his State by a study of developments in the eight counties organized on the county basis as compared with the 19 counties on the district basis are:

- A near approach to a system of tenure of office.
- Increased salaries to teachers.
- Recognition of especially meritorious service.

Equitable school privileges to all children within the consolidated area, brought about principally by a uniform rate of school taxation throughout the consolidated district.

The appointment of professional men by the boards of education to act as the superintendents of schools.

Increased salaries for the school superintendents. Prior to consolidation, \$1,000 per year was about the highest salary for a school superintendent. To-day, in the consolidated districts, we have superintendents receiving from \$2,500 to \$3,000 per annum.

Prescribed professional and educational qualifications for county superintendents.

Improved supervision through employment of supervisors is one of the chief benefits.

Improved business methods. The school clerk of the consolidated county prepares all reports, keeps records, etc. This improved change is more valuable than at first may be understood.

Professional work throughout is much more marked in the consolidated counties than in the unconsolidated counties. The expense for maintaining schools is very much the same, but taking into consideration the improved and enlarged service considerable money is saved.

Mr. D. C. Jensen, county superintendent of schools of Box Elder County, Utah, has prepared the following statements to show what the adoption of the county system has accomplished in his county. Box Elder is a large county in the northwest corner of the State. The data are for the school years 1906-7 and 1913-14. The year ended in June, 1907, was the last under the old district plan.

School data of Box Elder County, Utah.

Items.	School year 1906-7.	School year 1913-14.
Schoolhouses used in the county.....	61	45
Number of children enrolled.....	3,552	4,523
Number of teachers employed.....	106	144
Pupils to each teacher.....	33	31
Children entering school for the first time.....	411	465
Graduates of eighth grade.....	135	335
Students in the high school.....	81	400
Graduates from the high school.....	.....	47

The foregoing figures are interesting from several points of view. You will note that we are now housing 4,523 pupils in 45 buildings, an average of 100 to the building, whereas before consolidation we had 3,552 pupils in 61 buildings, an average of 58 to each building. Increasing the size of the schools has made it possible to place more teachers in each building, and hence to secure better grading of pupils and much more efficient school work. We still have too many small mixed schools in which it is almost impossible to do efficient work, but as our outlying districts draw new settlers, which they are doing rapidly, they will grow into more populous communities and graded schools will become possible.

Referring to the figures again, you will note that in 1907 there was an average of 33 pupils to each teacher. In 1914 the average was 31 pupils to each teacher. While the average number per teacher has remained practically the same, they are now more uniformly distributed. Overcrowded rooms, with 50 to 60 pupils, are now unknown in the county, and the number of small mixed schools with only 8 to 15 pupils has been materially decreased. In the larger well-graded schools teachers are given from 35 to 40 children. In the smaller schools, where three, four, or more grades are under one teacher, from 20 to 30 pupils is the rule.

It will be noted that in 1907, 411 pupils entered school for the first time, while in the same year there were 135 graduates; i. e., the graduating class was equal to 32.8 per cent of the beginners' class. In 1914 there were 465 beginners and 335 graduates. In this year the graduates equaled 72 per cent of the beginners' class. In other words, the pupils completing the grades now have increased over 100 per cent as compared with those of 1907, the last year before consolidation.

* * * * *

It is interesting to note one further fact in the statistics given above. It will be seen that in 1907 there were 81 students in high school. These were all in the first two years of high-school work, as the third and fourth years were not then given. In 1914 there were 400 students in high school, 47 of whom completed the fourth-year work. This is a record to which we also point with considerable satisfaction.

During the year just passed the superintendent has been assisted in the work of supervision by four supervisors who are specialists in their lines of work and whose efforts in the county schools have shown most commendable results. A primary supervisor has devoted her energies to the direction of work in the first four grades. A supervisor of art and sewing has created great interest and marked improvement in these lines of work; in a few schools cooking has been introduced. As a result of the work of the supervisor of music never before have the boys and girls of Box Elder County been so enthusiastic in their enjoyment of music. The supervisor of agriculture has awakened and maintained much interest in practical agriculture and has organized 20 agricultural clubs among the boys.

Richmond County, Ga., is one of the 15 counties in the State where city schools as well as country schools are included in the county system. The Richmond organization is slightly different from that of other counties. The county superintendent, Mr. Lawton Evans, in an address published by the Georgia campaign committee, describes the Richmond County system as follows:

The board of education of Richmond County is an unusually large board. It consists of 40 members—3 from each of the five wards of the city of Augusta; 3 from each of the six militia districts; 3 from each of the two incorporated villages, and the ordinary of the county. * * *

The members of the board are elected for a term of three years, one-third of the membership expiring annually. This keeps two-thirds of the members acting as older and wiser than the new ones who may come in, and since many members are retained, we are not greatly disturbed by a large influx of reformers.

* * * * *

The board of education of Richmond County is elected directly by the people, at a special election held annually for the purpose. The school commissioner, or the superintendent, is elected by the board. This brings the people in direct contact with the schools, through their own representatives, and guarantees the kind of schools the people desire. The school commissioner can exercise some degree of independence of the people, in view of the fact that he is one degree removed from the popular election.

The peculiar advantage to be derived from a large area of organization is the distribution of the school fund according to the necessities of the people. In the case of my county the board has the unusual authority of levying a school tax, and this authority is not subject to the revision or approval of any other county authority. A school tax is levied upon all the property of the county, whether it is city property or county property. The rate is the same for stores and mills in the city and for fields and barns in the country. Everyone pays according to his possessions to make our school fund for the entire county. There is no separate city school tax and country school tax, but there is one general tax applied to all alike.

This general school fund is not distributed over the county according to the amount each ward or district has paid, but is distributed strictly upon the basis of school population. Every community gets its pro rata share of the school fund, according to school population, no matter how much or how little it has paid into the school treasury. It frequently happens that remote communities are rich in nothing but children, and of these they have a plenty. Perhaps the taxpayers of that community have not paid enough school tax to run a school six weeks, but they get an appropriation for a good schoolhouse and a teacher for seven or eight months in the year.

* * * * *

A county system can offer to the people at large facilities that no other kind of system can offer. If a community can show a need for a school, the county at large can supply the building and pay for the teacher. The teacher's pay does not depend upon the location of the school nor the accident of the district in which she is employed, but depends entirely upon how long she can keep the school together and how many pupils she can get to attend. She is rewarded according to her energy, being guaranteed a minimum amount and a minimum length of time. Being employed by a larger body than the district trustees, she feels independent of the whims of a few, and can do her duty and draw her pay.

As to expert supervision, I take it for granted that most persons will agree that a good superintendent who devotes all his time to the schools of his county or city, who meets the teachers and instructs them in the methods of teaching, who organizes and plans for better things in his system, who is a stimulant and an inspiration to his teachers, a real educational leader of power and influence in his community, can create a good school system through his own initiative. The discipline of the schools, the progress of the pupils, the extension of the school influence are largely in the hands of the man who thinks for them, and who will have better conditions or know the reason why.

A superintendent makes or mars a school system. Therefore he should be an expert, trained to the business, alert, and energetic to see that everything is moving along properly. Until a county can afford to pay a competent superintendent, and will get a trained educator for the purpose, the schools of the county will drag helplessly behind.

I beg leave to insist that the duty of a county superintendent is not merely to keep the books, audit the accounts, and distribute the pay to the teachers of the county. To divide the school fund out among all the teachers and have each one run his school at such an allowance is a schoolboy proposition in division. To visit, inspire, and upbuild a great school system is another proposition.

The solution of the question of expert and well-paid supervisors in our State schools is found in county local taxation, giving a large area and a sufficient school fund to engage the attention and warrant the pay of a trained educator.

V. A COMPARISON OF SALT LAKE COUNTY, CONSOLIDATED,¹ WITH UTAH COUNTY, UNCONSOLIDATED, STATE OF UTAH.

By J. C. MUERMAN, Bureau of Education.

For the purpose of comparison, two adjacent counties, similar in general characteristics, have been taken; one, Utah, organized with the old district system, has 23 separate districts; the other, Salt Lake,

¹ A consolidated county is a county organized as a single district under a county board of education. Unconsolidated counties are organized on the "district" basis.

organized under the county unit law, has two districts. All other "consolidated" counties of the State are organized with but one district in the county. Cities are independent districts, not included in the county systems. It should be understood that the school districts of Utah in unconsolidated counties are not the small districts usual in other States. The population of Utah is gathered in villages, not distributed on farms. There are only about 20 one-teacher schools in the entire State.

In selecting these two adjoining counties, Salt Lake and Utah, it is with the idea of comparing conditions that are the best. Of the 27 counties in the State of Utah, only 16 can be consolidated under the present law. Of this number, 8 are consolidated and several others are planning the necessary steps to become consolidated.¹ Of the 8 unconsolidated counties, Utah County is by far the richest and most populous. The schools are and have been well supported, and an active interest in their welfare has been maintained.

December 15, 1904, the county of Salt Lake was consolidated into two districts, Granite district being the northern half of the county and Jordan the southern half. They were made practically equal both in valuation and in population. The statistics given below are the combined figures for these two districts considered as a unit. The county contains Salt Lake City, a city of the first class, and Murray, a city of the second class. Utah county has also a city of the second class—Provo. The general conditions in each county are essentially the same. Both are agricultural, with good irrigated lands and some dry farming. Utah County has a beet-sugar factory, and Salt Lake County has several smelters and one of the largest copper mines in the world. Both have excellent transportation facilities. The markets are largely local. Utah County has the larger concentrated areas of population, the census of 1910 showing 11 incorporated towns, while Salt Lake County has only 4.

SCHOOL POPULATION AND ATTENDANCE.

School population and attendance show a healthy growth in each county. Salt Lake County, however, has sustained continual losses due to the extension of the boundaries of Salt Lake City. Approximately 1,217 pupils have been lost to the county in this way since 1906. Others are lost to the county because the Salt Lake City schools attract many pupils from Salt Lake County, thus lowering the attendance in the county. The excellent car service to the city, and the opportunity for work there while attending night or day schools, assist in making the loss to the county still larger. In spite of all this, the ratio of attendance is approximately the same in both counties. The

¹ See page 31.

list of those not attending any school seems to be growing in both counties. Quite a difference in favor of the consolidated county is shown in the average number of days attended by each child. In 1905 the numbers of days attended were approximately the same, but the report for 1912 shows the boys attended 25 days more in Salt Lake County than the boys of Utah County, while the girls of Utah County show 7 days more of average attendance than the girls of Salt Lake County. The per cent of population enrolled and the per cent of annual attendance do not offer a striking difference. The figures for each year since consolidation are given in the following table:

TABLE 3.—School population, 6–18 years, inclusive, and attendance.

Years.	Salt Lake County (consolidated).			Utah County (unconsolidated).		
	School population.	Per cent enrolled.	Number attending daily in every 100 of school population.	School population.	Per cent enrolled.	Number attending daily in every 100 of school population.
1905.....	8,739	82	58	8,557	86	67
1906.....	9,148	79	59	8,738	86	68
1907.....	7,870	85	65	8,819	85	70
1908.....	8,380	84	60	9,074	86	71
1909.....	8,675	85	66	9,548	83	68
1910.....	9,086	84	74	9,769	85	69
1911.....	9,096	88	66	9,971	86	72
1912.....	9,868	79	63	10,121	82	69

TABLE 4.—Average length of school term and number of days attended.

Years.	Salt Lake County (consolidated).			Utah County (unconsolidated).		
	Days in school year.	Average number of days attended by each child enrolled.		Days in school year.	Average number of days attended by each child enrolled.	
		Boys.	Girls.		Boys.	Girls.
1905.....	165	117	122	157	117	125
1906.....	169	127	128	155	118	130
1907.....	169	128	128	157	125	134
1908.....	171	125	122	158	126	133
1909.....	180	128	134	154	124	127
1910.....	168	135	135	163	129	132
1911.....	168	130	131	162	103	139
1912.....	166	131	132	162	106	139

TABLE 5.—*Number of teachers employed, and salaries.*

Years.		Salt Lake County (consolidated).		Utah County (unconsolidated).	
		Number.	Salary.	Number.	Salary.
1905	Men.....	53	\$72.55	62	\$70.73
	Women.....	98	53.65	91	48.84
1906	Men.....	45	80.99	63	71.95
	Women.....	98	55.96	97	50.40
1907	Men.....	46	74.79	67	76.56
	Women.....	127	57.05	106	50.60
1908	Men.....	47	91.92	68	82.23
	Women.....	144	58.92	116	53.09
1909	Men.....	52	84.76	69	74.76
	Women.....	154	62.57	124	52.08
1910	Men.....	48	108.91	71	84.92
	Women.....	170	66.63	130	54.40
1911	Men.....	53	98.70	78	89.25
	Women.....	169	63.14	139	56.98
1912	Men.....	46	95.70	83	89.20
	Women.....	170	62.62	177	45.61

Table 5 above shows that in the consolidated county of Salt Lake the average salary of teachers is higher than in Utah County, although the qualifications in both counties are practically the same. There is no greater tendency for teachers to change positions in one county than in the other. This table shows that the average salary for men teachers in Salt Lake County has advanced since 1905 from \$72.55 to \$95.69, and for women from \$53.65 to \$62.62. The number of teachers has increased 64. In Utah County the average salary for male teachers has increased from \$70.73 to \$89.20, and for female teachers has decreased from \$48.84 to \$45.61, but the number of teachers has increased 107 during the same period. Each year, however, except 1912, shows an increase in the average salary of the female teachers of Utah County.

MANAGEMENT AND SUPERVISION.

It is in the management and supervision of the consolidated county and the unconsolidated county that the most striking differences are noted. Jordan and Granite districts in Salt Lake County have each a board of five members, with a superintendent employed by each board. These men have absolute control over all school work in the county. This includes the purchase, care, and distribution of supplies, the employing of superintendents, teachers, and also special supervisors, under certain rules and regulations adopted for the government of each board. Utah County has 23 school boards and 1 county superintendent elected by the people.

The superintendents in the districts of Salt Lake County have excellent offices, well equipped, good and efficient property clerks, and storerooms in the same building with the offices of the boards of education and special supervisors. The office of the county superintendent of Utah County is in the back part of the bank building and

has practically no equipment; he is therefore working under a great disadvantage and contending against difficulties over which he has no control. It is manifest to anyone visiting the county that this superintendent is doing all in his power to bring the schools of Utah County up to a high standard and that the county has many excellent schools, but there is a lack of cooperation, of centralizing the school interests.

Salt Lake County has for each of its two districts a supervisor of primary work, 1 of music, 1 of drawing, and 1 of manual training. These supervisors have complete oversight in their respective territories; the teachers are thus working under one management in each district. There is a unity of work found in each school in the county, while the greatest freedom is allowed the individual teacher in her daily lesson plans. These plans conform to the course and outlines given for the month or year by the special supervisor.

Utah County has 1 supervisor of primary work, 2 of art, 9 special teachers of physical education, and 8 special teachers of music. Most of the last teach other subjects. The expense of special supervisors is so great that but few of the districts can afford to employ them. By employing one supervisor for the entire county, a great saving could be made. A committee composed of the county superintendent of Utah County and four representative men of the county carefully studied the situation in the northern part of Utah County and also in counties that were consolidated. The following is their report regarding supervision:

Consolidation unites, correlates, coordinates, and strengthens supervision by having all the supervision under the direction of one corps of supervisors, thus working unitedly together, each strengthening and supplementing the other.

EQUALITY IN TAXATION.

In consolidated districts taxation is equalized. Salt Lake County has equal taxation through the individual districts. The districts of Utah County, however, pay school district taxes that vary from 3 to 20 mills. The amount depends upon the vote of the people at a special or general election. The amount voted is not always adequate to the needs of the less prosperous districts on account of the low actual value of the assessable property of the district. For example, one district in Utah County pays upon a per capita valuation of \$5,103, while a near-by district pays upon a per capita valuation of but \$730. In a third district there is an abundance of corporate property, and it is necessary to levy a special tax of only 3 mills to maintain schools. A neighboring farming district finds a levy of 14 mills necessary to maintain schools of the minimum requirements. The per capita cost, based upon the total receipts for each district and the actual enrollment in the schools, was \$48.41 for Salt Lake County

and \$52.63 for Utah County. This amount varies from year to year, as new buildings are erected and a greater or less number of teachers are employed.

ECONOMY IN PURCHASE OF ALL SCHOOL SUPPLIES AND EQUIPMENT.

Consolidated counties have the advantage of purchasing school supplies in large quantities at lowest wholesale prices. In Salt Lake County two boards control all purchases. In Utah County 23 school boards purchase supplies for their separate districts. A single district seldom buys quantities in excess of its immediate want, or for the term or year, for fear of loss by theft or deterioration. Consolidated districts, on the other hand, having central offices and store-rooms where ample supplies are well kept and well guarded, buy in quantities and secure better prices. Economy is much greater, not only in the purchase of school supplies, but in the distribution as well. Supplies in the consolidated districts are sent upon requisition of the teachers, in such quantities as are actually needed. There is little waste of material or delay in transportation. In an unconsolidated county it frequently happens that teachers must wait for needed supplies until the individual member of the board having charge of the purchasing goes to town and returns with the supplies. Data of the complete savings in Salt Lake County are not available, but it is recognized that these savings have amounted to considerable. However, from Weber County, consolidated, comes a comparison which will serve to give some idea of the saving in school supplies when purchased by a single board for the entire county. The figures were compiled by the county superintendent.

TABLE 6.—*Cost of supplies in Weber County.*

	Before con- solidation.	After con- solidation.
Erasers, per gross.....	\$4.50	\$3.00
Pens.....	.85	.50
Crayons (enameled).....	.20	.15
Drawing paper, 9 by 12, per ream.....	2.50	1.75
Drawing paper, 9 by 12, per ream, better quality.....	3.00	2.20
Blotters, per gross.....	1.20	Free.
Yard sticks, per dozen.....	.40	Free.
Pencil paper, per pound.....	.08	.04½
Writing paper, per ream.....	3.00	1.60
Spelling blanks, per gross.....	10.80	4.50
Composition books.....	6.90	3.75
Writing fluid, per quart.....	.70	.06
Lead pencils, per gross.....	2.55	1.85
Penholders, per gross.....	3.50	1.15

COMPENSATION OF SCHOOL BOARDS.

Utah is one of the few States where school boards are paid a direct salary. A considerable saving results in the counties of that State upon consolidation.

In 1905, before consolidation, Salt Lake County paid school trustees more than \$1,000 in excess of that paid in Utah County, but in 1912 this condition was reversed: Utah County paid trustees \$5,188.80, while Salt Lake County paid \$3,041. It must also be taken into consideration that this means the compensation of two school boards in Salt Lake County; one board would have cost less. Trustees in consolidated counties are allowed by law per year a compensation not to exceed \$300 for each member, and expenses not to exceed \$100. District trustees may fix their own salaries. Utah County in seven years paid school trustees \$9,612.15 more than was paid to the trustees of the consolidated county of Salt Lake in the same seven years. This saving alone in trustees' salaries was sufficient to pay more than half of the salary of the county superintendent.

TABLE 7.—*Compensation of school boards.*

Years.	Salt Lake County (con- solidated).	Utah County (unconsoli- dated).
1906.....	\$2,806.25	\$3,930.85
1907.....	3,000.00	4,097.75
1908.....	3,162.50	4,207.50
1909.....	2,721.25	4,306.00
1910.....	3,594.60	4,421.00
1911.....	3,061.00	4,847.00
1912.....	3,041.00	5,188.80
Total.....	21,385.95	30,998.10

VI. THE COUNTY v. THE DISTRICT UNIT IN TENNESSEE.

By S. G. GILBREATH, President East Tennessee State Normal School.

“The county board of education” law was enacted by the Tennessee Legislature in 1907. This act provides that each county should be divided into five school districts and that one member from each school district should constitute the county board of education, the county superintendent of schools being named as secretary of the board.

The members of the board of education in each district are elected by the qualified voters of the district. Any person is eligible to election who is qualified by at least a primary education, who is a resident of the district, and a qualified voter therein.

The board is required to hold four regular meetings in each year and may hold as many special meetings as may be thought necessary. It is made the duty of the board to select all teachers, fix their salaries, erect school buildings, repair and furnish schoolhouses, fix all wages and incidental expenses, and control the expenditure of the public-school fund. It is further made the duty of the board to run

the public schools in the county, as nearly as practicable, the same length of time; to locate schools where deemed most convenient, having due regard to lessening the number; to receive monthly reports from the teachers; to issue certificates for warrant for salaries; to visit the public schools; to act on cases of appeal of pupils; to dismiss teachers for cause; to take care of, manage, and control all school property; and to buy, transfer, or sell school property, and make or take proper conveyances for the same.

Before the enactment of the county board of education law, in 1907, the public schools of Tennessee were under the management, control, and supervision of district boards of directors. Each county was divided into a number of school districts usually corresponding to the civil districts of the county. In some cases, however, school districts had been multiplied by action of county courts until counties with 15 or 20 civil districts had been subdivided into 40 or more school districts. Each school district had three directors who were charged with practically the same duties transferred in 1907 to the county board of education. Some of the general results of the operation of the county board of education law may be shown by the following comparative statistics for the scholastic years ending June 30, 1907 and 1913.

The scholastic population of the State in 1907, as reported by the district directors, was 766,625; and in 1913, as reported by county boards of education, it was 767,585.

School statistics of 1907 and 1913 compared.

Items.	1907	1913
Number able to read and write.....	561, 115	612, 559
Number of pupils enrolled.....	496, 726	525, 701
Average daily attendance.....	353, 016	367, 992
Enrolled in eighth grade.....	10, 172	16, 205
Enrolled in ninth grade.....	2, 576	12, 004
Enrolled in tenth grade.....	1, 278	6, 215
Enrolled in eleventh grade.....	499	2, 911
Enrolled in twelfth grade.....	.....	1, 158
Estimated value of public-school property.....	\$6, 331, 676	\$13, 442, 210
Value of schoolhouses erected.....	\$141, 057	\$672, 339
Total school funds received.....	\$4, 491, 752	\$6, 955, 934
County elementary-school expenditures.....	\$2, 843, 795	\$4, 351, 483
Certificates issued to eighth-grade pupils.....	1, 755	3, 611
Diplomas issued to high-school pupils.....	611	1, 182
County-school libraries.....	496	1, 478
Volumes in school libraries.....	32, 851	96, 677
Average length of school term in days.....	117	129
Average monthly salary of teachers.....	\$37	\$48

This tabular statement shows large improvement in public-school conditions in Tennessee, and much of the gain has been due to the county board of education law, changing the unit of administration from the district to the county.

The chief benefits which have come under the operation of this law are as follows:

1. *A more efficient board of administration.*—With three school directors selected from a small number of voters to manage one, two, or three schools, it was not possible to select as uniformly efficient men as is now possible under the county plan. The men then selected were interested only in the small interests of their respective schools or districts, and could not see or realize the larger field of public education.

2. *The consolidation of schools.*—The consolidation of the public elementary schools has been made possible through the county unit plan of administration. A board of directors managing one school could not consolidate it and did not often cooperate with neighboring boards. Under the county board of education law the school interests of the county are viewed as a whole, and as a result the consolidation of one-teacher schools is being carried forward. The latest report of the State superintendent of public instruction shows that there were, up to June 30, 1913, 1,183 county schools having two teachers each; 227 having three teachers each; 85 having four teachers each; 77 having five or more teachers each. In 1907 no report was made on consolidated schools.

3. *More efficient teachers.*—Under the district unit plan the selection of teachers was more often influenced by personal, official, or financial causes than is possible under the county unit plan. With the board of education charged with the employment of 50, 100, and 200 teachers, the tendency is to look more closely to the efficiency of the teacher, and to be influenced less by other considerations. There are probably as many incompetent applicants for positions in Tennessee to-day as ever before, but fewer of these find employment. With a larger board, representing a larger territory, and working officially with the county superintendent of schools, the salaries offered teachers show a substantial increase. This has made possible the employment of better teachers.

4. *The equalizing of school terms.*—Under the district unit plan each district was apportioned its per capita share of the school funds, with the result that in the same county some schools had a term of less than three months, while others had four, six, or eight months, depending entirely upon density of population and the number of children belonging to each district. The county board of education law provides that the schools in each county shall continue the same number of days regardless of the size of the school. This guarantees to each child that which rightfully belongs to him—an equal number of days' tuition with his county neighbor.

5. *Economical expenditure of school funds.*—District boards of directors purchased at retail from local dealers all school supplies needed, such as brooms, crayon, erasers, school furniture and apparatus. Under the county board of education law these supplies

are purchased on competitive bids in wholesale quantities and are distributed through the office of the county superintendent. This has effected a large saving in every county and has made possible an economical administration of expense and supply funds.

6. *Better schoolhouses.*—It was very difficult, if not altogether impossible, under the district unit system, to secure funds for the erection and repair of school buildings, as the demand for such funds was necessarily local. In Tennessee the county court is the authority regulating all school levies except those provided for by the State legislature. The demand for building funds on the part of the board of district directors did not influence any large section of the court. Under the county unit plan the reports and demands of the county board are of interest to the entire county. The county unit system, taken in connection with the authority granted county courts to issue bonds for building, repairing, and furnishing schoolhouses, has resulted in the very great improvement of public school property. All this was impossible under the old system.

7. *School funds.*—The taxes levied by county courts for the support of the public schools have shown a very large increase since the enactment of the county board of education law. The united board of education, representing the entire county, and having in harmony with its demands the sentiments of all the teachers, the county superintendent of schools, and many progressive taxpayers, is very influential in determining tax levies. This community of effort could not be had under the district unit system.

8. *Unity of interest.*—With the county as a unit the interest of the patrons in the progress and real worth of the schools has been intensified, and all have been given a clearer understanding of the problems that must be worked out through the public schools. There is a more intense interest on the part of the patrons in the activities and needs of the schools than could have been experienced under the old law where each school was a unit in administration, support, and interest.

The general results of the law have been most helpful: School funds have been enlarged; teachers are better and are better paid; better schoolhouses have been erected; a vitalized course of study has been made possible; consolidation of schools has been furthered; and the interests of the people have been enlarged and intensified through the operation of the county board of education law.

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INTRODUCTION.

The International Commission on the Teaching of Mathematics, created by the International Congress of Mathematicians at Rome, Italy, in 1908, submitted a large body of reports to the congress at Cambridge, England, in 1912. Those for the United States have been published as bulletins of the Bureau of Education (Bulletin, 1911, Numbers 6, 7, 8, 9, 12, 13, 16; 1912, Numbers 2, 4, 13, 14). The congress directed the commission to continue its activities and to submit further reports to the congress to be held at Stockholm, Sweden, in 1916. The following bulletin has been prepared as a part of the report of this country for the second period of the commission's labors. The work of this period will naturally consist, to a considerable extent, of a preparation by each nation of a digest of the results of the earlier work of the commission, as seen from the point of view of that nation.

No one believes in the bodily transplantation of a course of study or of methods of work from one nation to another; yet the very existence of the commission, and the phenomenal success of its work, are evidences of the widespread conviction that every nation can profit from a careful comparative study of the work of other nations.

The material that follows shows that the types of school organization and the curricula in mathematics of the leading nations of Europe have much more in common with each other than with those of the United States. European nations will therefore sometimes find in the practice of their sister nations encouraging confirmation of their own customs, whereas the United States will be confronted by the question as to whether she alone has found the path that is best, at least for herself. Some lines of divergence between the general practice in Europe and that of the United States are mentioned in the concluding remarks of this report (p. 87). Historical and other reasons for the existence of the divergencies are easily found. Reasons, sometimes of a theoretical, sometimes of a practical, nature, may doubtless also be found sufficient to warrant the present continuance of some or all of these divergencies. At the same time the possession of authoritative statements of the practice of the world's leading nations, as contained in the reports from which the material that follows is taken, can but prove helpful and stimulating to the educators of the United States. The efficient supervisor or the alert teacher will surely profit by a serious study of the curricula in other countries as set forth in this bulletin. He may find little or nothing

that is directly usable in his own environment, but he can not help being aided in his effort to improve his own work, according to local needs and conditions, by a wider knowledge of what is done in corresponding cases by the world at large.

All of the statements of fact in the bulletin are based upon reports of the international commission to the congress at Cambridge. A complete bibliography of the reports used is given on page 88. The data for the various nations have perforce been given with varying degrees of completeness, depending upon the information available in the reports. As the age at which pupils enter school varies somewhat in different countries, the age of the pupil, rather than the school year, was chosen as the basis of comparison.¹

Unless otherwise stated, it is to be understood that the European schools are for boys only. Relatively little is as yet done in most of the European countries for the mathematical education of girls beyond the fundamentals of arithmetic. The scanty information that is available is given in appropriate connections.

¹ The public schools of the United States comprise, in most cases, an eight-year elementary course, followed by a four-year course in the secondary school. In some cases the course in the elementary school is seven years and in the secondary school five years in length. In rare instances both the elementary and the secondary school courses are six years in length.

The age of compulsory school attendance varies somewhat in the different States, but it is usually from the age of 6 or 7 to 14. Most pupils enter the elementary school at the age of 6 or 7. Both the elementary and the secondary schools are free to all pupils of the school district.

The courses in the elementary schools of the country are more nearly uniform than those of the secondary schools. In the elementary schools the attempt is made to lay the foundation for a good general education. Reading, writing, arithmetic, history, geography, elementary science, and spelling are the important subjects of the curriculum. There is but little opportunity for choice of courses in these schools. In the secondary school a pupil is sometimes permitted to select those subjects that he especially wishes. Certain subjects are often required, and the pupil is permitted to select a prescribed number of additional subjects. In many of the larger cities there are secondary schools of various types, such as commercial, manual training, and industrial.

A pupil who has completed the course in a good elementary school may enter a secondary school without examination. Many of the colleges and universities admit graduates of secondary schools upon the presentation of a diploma or a certificate, but some colleges and universities admit only by examination.

In this report the New York State course of study is rather closely followed in outlining the subject matter of the elementary school. This course is fairly typical of the best courses of the country.

Arrangement of school years in the United States.

Age of pupil.	School year.	Elementary school.	Secondary school.
6-7.....	First.....	1	.....
7-8.....	Second.....	2	.....
8-9.....	Third.....	3	.....
9-10.....	Fourth.....	4	.....
10-11.....	Fifth.....	5	.....
11-12.....	Sixth.....	6	.....
12-13.....	Seventh.....	7	.....
13-14.....	Eighth.....	8	.....
14-15.....	Ninth.....		1
15-16.....	Tenth.....		2
16-17.....	Eleventh.....		3
17-18.....	Twelfth.....		4

CURRICULA IN MATHEMATICS.

I. GENERAL ARRANGEMENT OF THE COURSES IN TYPICAL SCHOOLS OF THE VARIOUS COUNTRIES.

AUSTRIA.

Arrangement of school years.

Age of pupil.	School year.	Volks- schule.	Bürger- schule.	Gymna- sium.	Real- schule.	Real- gymna- sium.
6-7.....	First....	1				
7-8.....	Second..	2				
8-9.....	Third...	3				
9-10.....	Fourth..	4				
10-11.....	Fifth....	5				
11-12.....	Sixth...		1	1	1	1
12-13.....	Seventh..		2	2	2	2
13-14.....	Eighth...		3	3	3	3
14-15.....	Ninth....			4	4	4
15-16.....	Tenth....			5	5	5
16-17.....	Eleventh..			6	6	6
17-18.....	Twelfth..			7	7	7
				8		8

The minister of education has general supervision of education in all of the 14 Provinces into which Austria is divided. In each Province there is a superintendent of education, who stands midway between the minister and lower-school authorities. Each Province is divided into districts and each district has its school council. The members of this school council are nominated by the teachers of this district and appointed by the higher-school council. Each district is divided into smaller subdivisions and each of these has its local board. Compulsory education extends from the sixth to the fourteenth year. Coeducation is the rule in the rural districts and the exception in the cities.

The administration of secondary education is vested in the minister of instruction. Each Province has an inspector and a local board. All schools, whether public or private, are subject to the same regulations as the State schools. Most of the secondary schools are maintained by the State.

There are two kinds of elementary schools: (a) The common primary, usually called the Volksschule, and (b) the superior elementary school, called the Bürgerschule. Many of the Bürgerschulen in the rural communities are ungraded. In the cities the course in these schools comprises from two to eight grades. The Bürgerschulen usually consist of three classes, which follow the fifth year of the primary school. Pupils may enter directly from the primary school. Different courses are offered for boys and girls, and as far as possible the sexes are instructed in different schools.

Sometimes an intermediate course of one year follows the Bürgerschule. The nature of the course which a pupil follows during this year depends largely upon the

type of school for which he is preparing. It is now proposed to make the intermediate course an additional class of the Bürgerschule.

There are three general types of secondary schools: (a) The Gymnasium; (b) the Realschule; and (c) the Realgymnasium. The first has a course of eight, the second of seven, and the third of eight years, thus differing from the custom in Germany. The minimum age for admission to the Gymnasium is 10 years, so that the first year in the Austrian Gymnasium corresponds to the second year in the German Gymnasium, and four years of preliminary work are required for entrance. The average age at entrance is 10½ to 11 years.

The Gymnasium offers the traditional classical course and prepares the pupil for entering any university. In the Gymnasium more than 50 per cent of the school time is devoted to the study of Latin, Greek, history, and the mother tongue. About 25 per cent of the time is devoted to mathematics, the history of Austria, geography, physics, and chemistry. Latin and Greek are emphasized.

The Realschule attempts to furnish a thorough knowledge of the modern subjects, with special attention to the sciences. In these schools the pupil is prepared for the study of more advanced natural science and mathematics; no attempt is made to prepare him for any particular vocation.

The course in the Realgymnasium is intended for those who wish some secondary education but do not expect to enter a university or a higher technical school. A graduate of the Realgymnasium may enter certain classes of the Gymnasium or of the Realschule.

A type of secondary school called the Reform Gymnasium, standing intermediate in courses offered between the classical Gymnasium and the Realschule, was organized in 1908. It has an eight-year course. The four lower classes are identical with the corresponding classes of the Realschule. In the four upper classes Latin, a modern language, and free-hand drawing are required; in other respects the course is like the upper grades of the Gymnasium. Greek is not taught in the Reform Gymnasium.

BELGIUM.

Arrangement of school years.

Age of pupil.	School year.	Primary school.	Middle school.	Athénée royal.
6-7.....	First.....	1	.....	.....
7-8.....	Second.....	2	.....	.....
8-9.....	Third.....	3	.....	.....
9-10.....	Fourth.....	4	.....	.....
10-11.....	Fifth.....	5	.....	.....
11-12.....	Sixth.....	6	.....	.....
12-13.....	Seventh.....	.....	1	1
13-14.....	Eighth.....	.....	2	2
14-15.....	Ninth.....	.....	3	3
15-16.....	Tenth.....	.....	.....	4
16-17.....	Eleventh.....	.....	.....	5
17-18.....	Twelfth.....	.....	.....	6
18-19.....	Thirteenth.....	.....	.....	7

The primary school in Belgium comprises the first six school years. To be admitted, a pupil must have passed the sixth year of his age by October of the year he enters school and must be less than 14 years of age.

The law provides that at least one primary school must be maintained in each commune. Children of indigent parents must be taught gratuitously. There are now more than 7,000 primary schools under State supervision. About one-third of the number are coeducational.

The King appoints an inspector for the primary schools of each of the Provinces of the country. The primary schools are usually divided into three subdivisions: (a) The elementary, (b) intermediate, (c) superior, each of which comprises two years. The primary schools are under the control of the commune, but the State reserves the right of inspection. After completing the prescribed work of the primary school—that is, at about the age of 12, a pupil may enter either the middle school or the *Athénée Royal*. The lowest class in each of these schools corresponds, therefore, to our seventh grade.

The course in the middle schools is three years in length, corresponding to our seventh, eighth, and ninth grades. These schools were created to meet the needs of the higher artisan and the commercial classes, and emphasis is placed upon immediate utility. The diploma is valuable in many business pursuits. Attendance at the middle school is compulsory for all who expect to take a Government position. Pupils leaving these schools are qualified for the lower public positions and for positions in commercial, industrial, and mechanical arts. The usual age of admission to the middle school is 12 years. The pupil must pass an examination before he is admitted.

The middle schools, like the primary schools, are under the control of the commune, but the State exercises the right of inspection. A pupil who has completed the course in the middle schools, and who desires to prepare for the university, may enter the fourth from the upper class in the *Athénée*. There are now about 80 middle schools for boys and 40 for girls.

The *Athénées Royaux* are the official schools of higher grade, and they have a course seven years in length. They are usually for boys only. To be admitted to the lowest class of these schools a pupil must be at least 11 years of age and must pass an entrance examination. In general, however, the lowest class corresponds to our seventh grade, the age of the pupil being about 12 years. The boy leaves at about the age of 19, after 13 years in school. These institutions are supported by the State and are independent of the commune. They correspond rather closely, in some respects, to the secondary schools of the United States.

There are three kinds of *Athénées Royaux*: (a) The humanistic, with seven years of Latin and five years of Greek; (b) the Latin humanities, with seven years of Latin and no Greek, but with an extensive course in mathematics; (c) the modern humanities with seven years devoted to a modern language. The course in the modern humanities, is frequently divided into two sections in the three upper classes. These sections are (a) scientific and (b) commercial.

Pupils who complete any of the three courses in the *Athénée Royal* and pass a final examination receive a diploma which admits them to the university. Graduates of the classical course are admitted to any faculty in any of the universities. Graduates of the Latin-scientific course are admitted to the higher schools of mining, engineering, and manufacturing. Graduates of the modern humanities are admitted to the commercial and consular sections in the Universities of Ghent and Liege.

The organization of parallel courses equivalent to the established classical course follows French rather than German precedent. In Germany the various types of courses are found in different schools: The *Gymnasium*, *Realgymnasium*, and *Realschule*.

The secondary schools of Belgium are a very important factor of the national life. The opportunity to secure a good education is offered to all, and no social or class distinctions determine the kind of education that a boy or girl shall receive. The great intellectual leaders of the country are usually products of the *Athénée*. In Belgium the classical course is still regarded as a dignified and scholarly course, but the utilitarian subjects are regarded as of equal importance and dignity with the classics.

DENMARK.

Arrangement of school years.

Age of pupil.	School year.	For- skole.	Mellem- skole or inter- mediate.	Real- classe.	Gym- nasium.
6-7.....	First.....	1	.....	.....	.....
7-8.....	Second....	2	.....	.....	.....
8-9.....	Third.....	3	.....	.....	.....
9-10.....	Fourth....	4	.....	.....	.....
10-11.....	Fifth.....	5	.....	.....	.....
11-12.....	Sixth.....	6	1	.....	.....
12-13.....	Seventh....	7	2	.....	.....
13-14.....	Eighth....	(8)	3	.....	.....
14-15.....	Ninth.....	.....	4	.....	.....
15-16.....	Tenth.....	.....	.....	1	1
16-17.....	Eleventh..	.....	.....	.....	2
17-18.....	Twelfth...	.....	.....	.....	3

Subdivisions of the Gymnasium—Periods per week devoted to mathematics in each.

	First year.	Second year.	Third year.
Classical course.....	2	2	2
Modern language course.....	2	2	2
Mathematical-scientific course.....	6	6	6

The schools of Denmark have always been closely associated with the church, but in recent years the church control has been largely nominal. The clergy still continue to instruct the rural inhabitants in the sparsely settled sections of the country. The bishop and the clergy aid in the selection of teachers and in the general administration of the schools.

The schools are under the control of civil authorities. The minister of ecclesiastical affairs and public instruction has supervision of the entire educational system, including the university. Certain rights are vested in the local school authorities. It is the duty of the minister of public instruction to inspect and regulate the schools—to gather statistics and to apportion the school fund. Each of the 18 counties has its own school council, and each of the 60 districts has its school board, which appoints teachers, aids in selecting books, and arranges the course of study. Each commune and village has its school commission, which looks after the individual school.

The elementary schools are called Forskoler. Compulsory school attendance begins at the age of 7 and ends at 14. Most of these schools are free, and books are usually furnished without cost. In most of the rural districts the schools are coeducational, but this is not true of the schools in the larger cities.

The minimum length of the school year is 240 days of six periods each.

There are three divisions of the primary school. The first division is of three years; the second, two years; and the third, two years. The municipal school of Copenhagen is regarded as the best in the country, and the methods and courses of study used there are freely copied elsewhere. Coeducation has been introduced into some of the elementary schools of Copenhagen with marked success. The course at Copenhagen is seven years in length; in some parts of the country it is eight.

The middle and secondary schools are in process of development, and it is difficult to draw sharp distinctions between the various kinds of schools. In some of the municipal elementary schools the highest classes overlap some of the classes of the intermediate schools. In Copenhagen there are continuation schools where pupils

who have finished the first seven school years may secure further instructions in certain subjects. A short course in mathematics and its practical applications is given. These schools are growing rapidly.

The lowest four classes of the higher schools comprise the intermediate schools. A pupil enters the intermediate school at the age of 11 or 12 and completes the course at the age of 15 or 16. The intermediate schools are called "Mellemskole." They were established in 1903 in the attempt to eliminate the abrupt break between the elementary and the secondary schools. Most of the schools of this type outside of Copenhagen are coeducational.

After completing the four years of the Mellemskole, a pupil may enter the Real-classe, which continues for one year, or he may enter the three-year Gymnasium, which prepares for the university.

The Gymnasium course is composed of three subdivisions: (a) The classical course, (b) the modern language course, (c) the mathematical-scientific course. In all secondary schools the recitation period is 50 minutes. The summer vacation begins early in July.

There are a number of private schools in Denmark, called Folkehoiskole. They follow the intermediate school and are largely cultural in aim. The mathematical instruction in these schools is usually limited to facility in calculation and correlation with the natural sciences.

FINLAND.

Arrangement of school years.

Age of pupil.	School year.	Primary school.	Lycée.
7-8.....	First....	1	.....
8-9.....	Second..	2	.....
9-10.....	Third...	3	.....
10-11.....	Fourth..	4	.....
11-12.....	Fifth....	5	1
12-13.....	Sixth...	6	2
13-14.....	Seventh..	7	3
14-15.....	Eighth...	.....	4
15-16.....	Ninth...	.....	5
16-17.....	Tenth...	.....	6
17-18.....	Eleventh..	.....	7
18-19.....	Twelfth..	.....	(8)

The elementary primary schools of Finland are coeducational; the higher primary schools are not. A small fee is charged at all primary schools. Education is not compulsory beyond the elementary school.

The primary schools in cities are usually divided into three periods: (a) The elementary primary school of two years; (b) the ordinary primary school of four years; (c) the complementary school of one year. A pupil must be at least 9 years of age before he can enter the ordinary primary. The age for entering the complementary school varies from 14 to 17 years.

As the population of Finland is largely rural, and exceptionally homogeneous, the courses in all primary schools are practically the same.

There are four types of secondary schools: (a) The classical lycée, (b) the real lycée, (c) the preparatory schools, (d) finishing schools (for girls only).

There are 26 State lycées for boys and 16 for girls. The pupils who enter the lycées are from 9 to 12 years of age. In the real lycée one more hour a week is given to mathematics than in the classical lycée, and much more emphasis is placed upon the study of physics.

FRANCE.

Arrangement of school years.

Age of pupil.	School year.	Primary school.	Higher primary.	Lycée.
6-7.....	First.....	1	.....	.....
7-8.....	Second...	2	.....	.....
8-9.....	Third.....	3	.....	.....
9-10.....	Fourth...	4	.....	.....
10-11.....	Fifth.....	.....	1	1
11-12.....	Sixth.....	.....	2	2
12-13.....	Seventh..	.....	(3)	3
13-14.....	Eighth...	.....	.....	4
14-15.....	Ninth.....	.....	.....	5
15-16.....	Tenth.....	.....	.....	6
16-17.....	Eleventh..	.....	.....	7
17-18.....	Twelfth..	.....	.....	(8)

Primary education in France is free, compulsory, and secular. The law requires that every commune must have at least one primary school for boys, and every commune of more than 5,000 population must have a primary school for girls. Education is compulsory from the sixth to the thirteenth year.

Primary instruction is given up to about the age of 10 or 11; then more or less differentiation in training occurs. There is an elementary course of two years; the pupils in this course range in age from 6 to 9 years. This is followed by an intermediate course of two years; the pupils are from 9 to 11 years of age. Finally, there is a higher primary school of two or three years. Most of the pupils take only the first two of these courses and then enter a secondary school. The higher primary course is not offered in all schools.

Higher primary instruction is of two kinds: (a) The higher primary course, and (b) the complementary course. The first differs from the second in that it is entirely separate from the elementary school and is under a different director. The complementary course is connected with the elementary school and is under the same direction. The higher primary school usually has a course of two, sometimes of three, years. The complementary course is one year. Pupils who complete the course in the higher primary school are prepared for agriculture, industry, and commerce. However, the aim in these schools is not primarily to prepare the pupil for a particular vocation, but to furnish a general practical knowledge of several vocations. Those who wish to prepare for examinations for entrance to more advanced schools are put into a special section. To be admitted to either of the above divisions, a pupil must have a certificate from the elementary school and must have taken at least one year of additional work.

The school day lasts from 8.30 to 11.30 a. m. and from 1 to 4 p. m. Sessions are held daily except Sunday and Thursday. The latter day is set apart for religious instruction outside of the school. Vacation begins about August 15 and lasts until December 1. Coeducation is the exception throughout the French system.

The minister of education nominates an inspector of primary schools for each district. Superior in authority to these are the inspectors of academies; these men are really heads of departments of primary schools. There are 10 general inspectors of primary education, who stand next to the minister in authority in these schools.

Secondary education is not compulsory; nor is it free. The State charges a small fee, but numerous scholarships are offered. The present organization of the secondary schools dates back to 1902. The curricula of these schools were somewhat modified in 1905 and 1909.

There is a course of seven years. The pupil usually enters at the age of 10 or 11 and graduates at the age of 17 or 18. The secondary school is divided into two cycles, the first of four and the second of three years. Pupils who enter the first section are required

to study Latin and they may elect Greek; in the second section particular emphasis is put upon the study of French and the sciences; Latin and Greek are not offered.

Electives are offered in the second and third years of the second cycle. In one course Greek and Latin are continued. In a second course Latin and either English or German are studied. In a third course the sciences and modern languages predominate, and but little Latin is offered. In the fourth no Latin is offered; emphasis is put upon the sciences and upon modern languages.

At the end of the second cycle the pupil presents himself for the first part of the baccalaureate degree. He must be at least 16 years of age. An additional year is then given to preparation for the second part of the degree. This degree is a sufficient passport for entering the higher schools.

The secondary schools of France are called lycées. In some communes institutions called colleges are maintained. These are usually of a lower grade than the lycées and are financed by the communes. All private secondary schools are subject to State inspection.

The lycées for girls usually have courses of five or six years.

GERMANY.

Arrangement of school years.

Age of pupil.	School year.	Volks- schule.	Bürger- schule.	Gymna- sium.	Realgym- nasium.	Oberreal- schule.
6-7.....	First....	1	.....	.....	.....	.....
7-8.....	Second..	2	.....	.....	.....	.....
8-9.....	Third....	3	.....	.....	.....	.....
9-10.....	Fourth..	4	1	1	1	1
10-11.....	Fifth....	5	2	2	2	2
11-12.....	Sixth....	6	3	3	3	3
12-13.....	Seventh..	7	4	4	4	4
13-14.....	Eighth..	8	5	5	5	5
14-15.....	Ninth....	.....	6	6	6	6
15-16.....	Tenth....	.....	7	7	7	7
16-17.....	Eleventh..	.....	8	8	8	8
17-18.....	Twelfth..	.....	9	9	9	9

Classes in a nine-year secondary school.

	Classes.	Usual age of pupils.
		Years.
Lower stage.....	Sexta—VI.....	9
	Quinta—V.....	10
	Quarta—IV.....	11
Intermediate stage..	Untertertia—UIII.....	12
	Obertertia—OIII.....	13
	Untersekunda—UII.....	14
Upper stage.....	Obersekunda—OII.....	15
	Unterprima—UI.....	16
	Oberprima—OI.....	17

The following table indicates the average number of periods per week allotted to the study of mathematics in each type of secondary school:

Periods per week in mathematics.

	Class.									Total.
	VI	V	IV	UIII	OIII	UII	OII	UI	OI	
Gymnasium.....	4	4	4	3	3	4	4	4	4	34
Realschule.....	4	4	4	4	5	5	5	5	5	41
Oberrealschule.....	5	5	6	6	5	5	5	5	5	47

In Germany centralization of educational authority is not carried to so high a degree as in France. Each of the German States is independent in all local affairs, and the educational system is characterized by flexibility rather than rigidity.

In the United States a pupil may enter the elementary school and continue his course through the university. The "educational ladder" is unbroken. In Germany there are two distinct systems, the lower or elementary school and the higher school system. After a pupil has passed his fourth school year it is almost impossible to transfer from one to the other. Elementary education is usually based on State laws; secondary education is usually regulated by ordinances of a local character.

In the United States the direction of the internal organization of the schools rests with the local communities. In Germany it is in the hands of the various States. The official to whom is delegated the highest authority in educational affairs always has some other State duties. In Prussia the highest official in education is the minister of public worship and education; in Bavaria he is the minister of the interior, of public worship and education; in Wurttemberg he is the minister of ecclesiastical and school affairs.

The various subdivisions of the schools are under the immediate direction of subordinate ministers and of directors and school councils. All of these authorities are State officials. The community looks after the external administration of the school, such as the erection, equipment, and sanitation of buildings. In some of the large city systems a school superintendent is appointed as professional advisor. The appointment of all teachers must be confirmed by the State.

Education is compulsory from the sixth to the fourteenth year (sixth to the thirteenth year in Wurttemberg), and there are practically no illiterates in Germany.

The elementary schools are called Volksschulen, and are all free. The majority of the teachers are men, but the percentage of women is steadily increasing. Most of the Volksschulen have an eight-year course. The school day consists of four or five periods. It begins at 7 or 8 in summer and at 8 or 9 in winter. The number of classes depends upon the size of the school. All Volksschulen must conform to certain minimum requirements prescribed by the State.

Most of the German States make a special provision in the elementary schools for the education of backward and of exceptionally gifted children. The schools are divided not only vertically, but horizontally. The brighter children have a richer curriculum, usually including a foreign language. Normal pupils require eight years to complete the course in the Volksschule. Very able pupils, after two years' attendance, are put into special classes which prepare them for the Gymnasium in one and one-half instead of two years. For backward pupils, courses of from 7 to 10 years are offered.

The middle schools of Germany are called Mittelschulen, higher elementary schools, or Bürgerschulen. They are intermediate between the lower elementary and the secondary school from the point of view of courses offered. Attendance at these schools is not a prerequisite for admission to the secondary schools. Mittelschulen are especially common in the States of southern Germany. Some of these are for boys, some for girls, and some are attended by both boys and girls. The course is usually nine years in length, and the lower grades overlap the primary school. The curricula in these schools are adapted as far as possible to local and individual needs. The schools are largely utilitarian in aim. Usually not more than one foreign language is studied, but exceptional pupils may study a second foreign language after the seventh year.

SECONDARY SCHOOLS.

The public secondary schools are almost all undenominational or interdenominational. The elementary schools are usually denominational, except in Baden and Hesse, and the Volksschulen in some of the cities.

Separate schools are usually maintained for boys and girls, except in Wurttemberg, Baden, and Hesse, where mixed classes are common. In all of the States, mixed classes are found in the small schools in rural communities. Most of the secondary schools for boys are public, and many of those for girls are private. The maintenance of the elementary school usually falls upon the community. Cities and towns maintain their own secondary schools. There is a tendency to provide more liberally for public secondary education for girls.

A few secondary schools have preparatory schools (*Vorschulen*), but entrance is usually made from the third or fourth grade of the elementary schools. Most of the secondary schools have a nine-year course, but some have a course of six years.

Promotion is by classes, not by subjects. A pupil who fails in two major subjects is not promoted. The maximum size of classes is 50 in the lower stage, 40 in the intermediate, and 30 in the upper.

The school day begins at the same time as in the elementary school and consists of five or six periods of 40 or 50 minutes each.

There are three kinds of higher schools with nine-year courses: (a) *Gymnasium*, (b) *Realgymnasium*, (c) *Oberrealschule*.

The *Gymnasium* is the classical secondary school. Both Latin and Greek are taught.

In the *Realgymnasium* no Greek is taught. Latin, the modern languages, and mathematics are emphasized.

In the *Oberrealschule* Latin and Greek are not taught, but emphasis is placed upon the modern languages and science.

In all three types of schools German, history, religion, and mathematics are taught.

The fundamental idea in organizing the *Realschule* was to prepare for the commercial professions, as the *Gymnasium* prepares for the learned professions. The curricula in most of the *Realschulen* have been enlarged to meet the demands for broader culture.

After the first three years in a secondary school it is almost impossible for a pupil to transfer to another type of school. This means that parents must decide by the time their children are 9 or 10 years of age which type of school they wish them to enter. In order that this decision, which is almost irrevocable, may be postponed until the child is a few years older, institutions called *Reformgymnasien* and *Realgymnasien* have been established. In these schools a common foundation for all three types of secondary schools is laid in the first three years. At the end of this period one section begins the study of English, and emphasis is later put upon the natural sciences (*Realschule* and *Oberrealschule*). Another section begins the study of Latin, and two years later this section is subdivided, one division (*Gymnasium*) beginning the study of Greek and the other section (*Realgymnasium*) beginning the study of English. This general plan is sometimes called the Frankfort system.

Most of the States now maintain separate high schools for girls. The curricula of these schools are not unlike those of the *Realschule*, except that less emphasis is placed upon science and mathematics. In the boys' schools all of the teachers are men. In the girls' schools some of the teachers are men.

For a description of the conducting of classes in the various types of schools the reader may consult "Mathematics in the Schools of Prussia," by J. W. A. Young, published by Longmans, Green & Co., New York. See also "The present Teaching of Mathematics in Germany" (Bureau of Publications, Teachers College, New York City), for details in regard to courses in mathematics in the secondary schools of the more important German States.

HOLLAND.

Arrangement of school years.

Age of pupil.	School year.	Primary school.	Bürger-schule.	Middle school.	Gym-nasium.
6-7.....	First.....	1	.....	.....	.....
7-8.....	Second.....	2	.....	.....	.....
8-9.....	Third.....	3	.....	.....	.....
9-10.....	Fourth.....	4	.....	.....	.....
10-11.....	Fifth.....	5	.....	.....	.....
11-12.....	Sixth.....	6	.....	.....	.....
12-13.....	Seventh.....	.....	1	1	1
13-14.....	Eighth.....	.....	2	2	2
14-15.....	Ninth.....	.....	.....	3	3
15-16.....	Tenth.....	.....	.....	4	4
16-17.....	Eleventh.....	.....	.....	5	5
17-18.....	Twelfth.....	.....	.....	.....	6

There are many large cities in Holland, and to a considerable extent they determine the general character of the primary and secondary education. Although complete religious liberty prevails throughout the Kingdom, the various religious denominations exercise great influence in educational matters.*

The minister of the interior is in charge of all State administration schools. There are 3 general inspectors and 25 district inspectors, and these have several subordinates. These officials are appointed by the sovereign and are paid by the State.

The local civil authorities, the communal burgomaster, and the council have charge of the local administration of the schools. All needs and conditions are reported to the communal council by the school boards.

The primary school comprises the first six school years. The pupils usually enter at the age of 6. Boys and girls attend the same school and are instructed together. Primary instruction is given in the day schools, the evening schools, and in the continuation schools. Attendance at the day school is obligatory for all children from 7 to 13 years of age.

There are between five and six thousand public day schools in Holland, and almost two thousand private primary schools that have been subsidized by the State.

The primary schools are open all the year except on holidays. Promotion from grade to grade is upon the basis of examinations. A pupil who completes the course in the primary school in a satisfactory manner is given a certificate of honor.

The secondary schools may be public or private. There are four general subdivisions:

- 1. Bürger schools.
- 2. Higher Bürger schools.
- 3. Industrial, trade, and technical schools.
- 4. Agricultural schools.

These schools are sometimes called the middle schools, to distinguish them from the Gymnasia.

The immediate supervision of all public secondary schools is exercised by local committees approved by the minister of the interior, who is supreme in all matters relating to the secondary schools.

Pupils may enter these schools either by examination or upon presentation of a certificate from the primary school.

The Bürger schools are especially for the children of the tradesman, mechanic, and the agriculturist. The law requires that such a school must be maintained in every community having a population of more than 10,000.

The Higher Bürger schools train those who expect to become engineers, architects, and technologists. Those who expect to enter the service of the State also attend

these schools. The diploma admits the pupil without examination to certain of the special higher schools.

The Higher Bürger schools have two courses, one of five years and the other of three. The tendency is to extend the course to six years. These schools offer especially thorough instruction in the sciences and modern languages. Entrance is by examination. A candidate for admission must be at least 12 years of age. A pupil who successfully completes a course is given a certificate which is of value to him if he seeks a civil or commercial appointment. There are about 100 Higher Bürger schools in Holland. Both boys and girls may be enrolled in these schools. Only male teachers are employed.

The Higher Bürger schools offer the majority of the pupils the best opportunity for a good, general secondary education. A graduate of these schools can not enter a university until he has studied one year of Latin and of Greek. In Belgium the sciences and the modern languages are considered as equivalent to the ancient languages in dignity and in importance, but the classical idea still prevails quite largely in Holland.

There are numerous types of industrial and technical schools. The course in these schools varies from one to five years. The Bürger schools make provision for commercial education. There are several schools of industrial and household arts for girls. Women frequently predominate on the boards in these schools. In all of the technical schools a good deal of attention is devoted to the subject of drawing.

Agricultural education receives a great deal of attention. A special inspector is in charge of the agricultural schools. Most of the schools of this type offer thorough courses in colonial agriculture. A special State inspector has supervision of the agricultural schools.

In addition to the schools mentioned above, every community of 20,000 inhabitants must have a Gymnasium. These prepare especially for the universities. The age of admission is 12 to 13 years, and the candidate for admission must pass an examination in the mother tongue, French, reading, writing, history, and arithmetic. The course is six years in length. There are about 70 Gymnasias in Holland, public and private.

The inspection and examination of the schools is very rigid and effective throughout the country.

HUNGARY.

Arrangement of school years.

Age of pupil.	School year.	Volks- schule.	Bürger- schule.	Gym- nasium.	Realschule.
6-7.....	First.....	1	.....	.....	.....
7-8.....	Second.....	2	.....	.....	.....
8-9.....	Third.....	3	.....	.....	.....
9-10.....	Fourth.....	4	.....	.....	.....
10-11.....	Fifth.....	5	1	1	1
11-12.....	Sixth.....	6	2	2	2
12-13.....	Seventh.....	.....	3	3	3
13-14.....	Eighth.....	.....	4	4	4
14-15.....	Ninth.....	.....	(5)	5	5
15-16.....	Tenth.....	.....	(6)	6	6
16-17.....	Eleventh.....	.....	(7)	7	7
17-18.....	Twelfth.....	.....	(8)	8	8

The number of hours devoted each week to the study of mathematics and of geometric drawing in the Gymnasium and Realschule is indicated in the following:

Periods per week in mathematics and geometric drawing.

Classes.	Gymnasium.			Realschule.		
	Mathe- matics.	Geometric drawing.	Total.	Mathe- matics.	Geometric drawing.	Total.
First.....	4	3	7	4	4	8
Second.....	4	3	7	4	4	8
Third.....	3	2	5	3	2	5
Fourth.....	3	2	5	4	2	6
Fifth.....	3	.....	3	5	.....	5
Sixth.....	4	.....	4	4	.....	4
Seventh.....	3	.....	3	4	.....	4
Eighth.....	2	.....	2	3	.....	3
Total.....	26	10	36	31	12	43

In Hungary, as in Austria, the minister of education is the highest school official. He is assisted by a staff of subordinate ministers and numerous school inspectors.

The elementary schools include the national, private, and city schools, but there is a certain unity in the courses, because all pupils are required to pass the same examinations. Boys and girls are usually taught in separate institutions, but coeducational elementary schools are not uncommon in the less densely populated districts. The course in the elementary school is six years in length. The law provides for a minimum school year of eight months in the country and nine in the city. Education is compulsory from the sixth to the twelfth year.

The Bürgerschulen are much the same as the corresponding schools in Austria. The course is usually four years in length, but some schools offer six or eight year courses. Some of the Bürgerschulen are supported by the State, some by religious organizations, and others by the communities. The girl and boy may enter these schools after completing the fourth class of the Volksschule. The entering age is usually 10. Both male and female teachers are employed.

In the Bürgerschule for boys the same subjects are usually taught in the first four years as in the first four years of the Gymnasium and Realschule, with the exception of Latin and French. The practical aim of the Bürgerschule is indicated by the introduction of some subjects not taught in the Gymnasium and Realschule. The Bürgerschule does not attempt to prepare the pupil for higher education, but seeks to emphasize the practical subjects and to lead to the higher vocations. Attendance at these schools does not excuse one from service in the army. Pupils may be transferred from certain classes of the Bürgerschule to the Gymnasium and Realschule and vice versa by passing examinations. The change that is gradually taking place in the Bürgerschule is evidenced by the fact that Latin is now taught in some of the boys' schools, and some of these schools are not unlike the Gymnasium and Realschule.

The secondary schools of Hungary are of two kinds: (a) The Gymnasium, (b) the Realschule. Both types of school have an eight-year course. A pupil may enter by examination after completing the first four classes of the elementary school.

In the Gymnasium Latin is studied in each of the eight classes and Greek in the last four. The study of Latin is obligatory. In many Gymnasia a pupil is permitted to elect some subject instead of Greek. German is taught after the second class.

Latin is not a required subject in the Realschule, but it is sometimes offered in the last four classes. In the Realschule German is taught in all classes and French

in the last six. Mathematics is treated more extensively and more intensively in the Realschule than in the Gymnasium.

Separate secondary schools of a distinctive type have recently been established for girls. These schools offer a six-year course and may be entered by examination after the completion of the sixth year of the elementary school. There are now two kinds of high schools for girls. In one of these especial emphasis is placed upon the modern languages and domestic science; in the other the course closely resembles that of the Gymnasium for boys. Both men and women are employed as teachers in the high school for girls.

ITALY.

Arrangement of school years.

Age of pupil.	School year.	Elemen- tary school.	Secondary school.		
			Classical school.		Modern school.
			Ginnasio.	Liceo.	
6-7.....	First....	1	.....	.....	.....
7-8.....	Second..	2	.....	.....	.....
8-9.....	Third...	3	.....	.....	.....
9-10.....	Fourth..	4	.....	.....	.....
10-11.....	Fifth...	5	1	.....	1
11-12.....	Sixth...	6	2	.....	2
12-13.....	Seventh..	.....	3	.....	3
13-14.....	Eighth...	.....	4	.....	4
14-15.....	Ninth...	.....	5	.....	5
15-16.....	Tenth...	.....	.....	1	6
16-17.....	Eleventh..	.....	.....	2	7
17-18.....	Twelfth..	.....	.....	3	.....

The minister of public instruction is at the head of the national educational system and is a member of the cabinet. There is a higher council of 36 members, 12 of whom are nominated by the minister, 12 are designated by the ordinary and extraordinary professors of the universities, and the remainder are elected by the senate and the chamber. Of these 36 members, 15 are appointed by the minister as a special committee in charge of all matters pertaining to higher education. Another group of members has charge of the secondary schools, and a third group has charge of the elementary schools. There are also several permanent committees to act as advisers on particular subjects.

There is an official (Proveditore) in each Province who has charge of the matters relating to public instruction within the Province. Each Province has also an educational council for the elementary schools and one for the secondary schools.

The elementary school usually consists of six grades. The first three grades comprise the inferior and the next three the superior course. A pupil may enter school at the age of 6, and education is compulsory from the sixth to the twelfth year. After completing the fourth year of the elementary school, the pupil who is going to a higher school may take an examination, and if he passes this he may enter the secondary school. No pupil is allowed to remain in the elementary school after he is 15 years of age or in the inferior course after he is 12 years of age.

Separation of pupils on the basis of sex occurs wherever the number of pupils in a school is sufficient to necessitate a duplication of classes and courses. Women teachers predominate in mixed schools and in elementary schools for girls. Men usually teach in the schools for boys.

The State assumes a share of the expenses for the elementary schools, and the remainder of the expense is borne by the communes.

Secondary schools are usually erected and equipped by the local authorities, and the other expenses are shared by the State. There are two types of secondary schools besides the normal schools:

- I. The classical school and the modern school with Latin—
 - (a) Ginnasio—5-year course.
 - (b) Liceo—3-year course.
- II. Modern school without Latin—Technical school—
 - (a) Scuola tecnica and scuola complementare—3-year course.
 - (b) Istituto tecnico—4-year course.
 - Istituto nautico—3-year course.

Secondary schools are divided into first and second grade. The first-grade schools are the Ginnasio, Scuola Tecnica, and Scuola Complementare. The second-grade schools are the Liceo, Istituto Tecnico, Istituto Nautico, and Scuola Normale.

No pupil is admitted to the secondary schools until he has passed an examination (maturita).

The complete classical course covers eight years, and the modern course covers seven years.

Girls are admitted to secondary schools upon the same conditions as boys. The Scuola Complementare is for girls only.

The secondary schools are subject to rather rigid inspection by officials from the office of the minister of education.

JAPAN.

Arrangement of school years.

Age of pupil.	School year.	Ordinary primary.	Higher primary.	Middle school.
6-7.....	First.....	1	.....	.....
7-8.....	Second.....	2	.....	.....
8-9.....	Third.....	3	.....	.....
9-10.....	Fourth.....	4	.....	.....
10-11.....	Fifth.....	5	.....	.....
11-12.....	Sixth.....	6	.....	.....
12-13.....	Seventh.....	.....	1	1
13-14.....	Eighth.....	.....	2	2
14-15.....	Ninth.....	.....	3	3
15-16.....	Tenth.....	.....	.....	4
16-17.....	Eleventh.....	.....	.....	5
17-18.....	Twelfth.....	.....	.....	(6)

Periods per week in mathematics.

	First year.	Second year.	Third year.	Fourth year.	Fifth year.	Sixth year.
Ordinary primary.....	5	6	6	6	4	4
Higher primary.....	4	4	4	.....	.....	.....
Middle school.....	4	4	4	4	2	.....

The State has entire control of education, and school attendance is compulsory from the sixth to the fourteenth year. The minister of education is a member of the imperial cabinet.

The school year extends from the first of April to the first of March of the following year. The actual school year, after all vacations have been deducted, is about 40 weeks.

The elementary school consists of two subdivisions. The first extends over the first six grades and is called the ordinary primary. The second, called the higher elementary, extends over the next two or three years. Education is compulsory

in the ordinary primary, but not in the higher elementary school. In some localities supplementary education is now provided for those who can not pursue their regular education beyond the compulsory stages.

Boys and girls are usually taught in the same school and in the same class during the elementary school period, but the middle and higher schools are not coeducational. Frequently, if the number of girls in one school year of the ordinary elementary schools or the number of girls in all the classes of a higher elementary school is enough to organize one class, the boys and girls are separated.

After completing the course in the ordinary primary school, the pupil who expects to enter a higher school goes at once to the middle school instead of the higher primary.

Applicants for admission to the middle school must be male graduates of the ordinary elementary schools, not less than 12 years of age, or must have attainments equal or superior to those of the graduates of ordinary elementary schools. Graduates of the ordinary elementary school are given preference over others.

The course in the middle school is usually five years in length; sometimes a supplementary year is added. The graduates of middle schools are qualified to enter higher special schools of various kinds and special industrial schools. They may enter military, naval, or navigation schools, or the higher normal school.

The middle schools were established to give boys a higher common education, but many of these schools have become virtually preparatory schools. The authorities are going to close the high schools preparing for the imperial universities and to establish new higher middle schools, for the purpose of imparting to those who have finished the middle school course a higher common education more thorough than before.

After graduating from a middle school, a boy who expects to enter the university may enter a higher school, having a course of three years, which prepares for the university. A boy who enters the university after preparing in this manner is 20 or 21 years of age. Admission to the higher middle schools is usually on the basis of competitive examinations. During the first year five hours per week are devoted to mathematics; during the second and third years, four hours per week. The course in mathematics in these schools includes trigonometry, algebra, analytic geometry, and the calculus.

After a girl finishes the ordinary primary school, she may enter a girls' high school or she may enter the higher primary school. The course in a girls' high school is four or five years. This is sometimes supplemented by two additional years. This supplementary course is the only provision for the higher education of women except the normal school and certain technical schools. No girl is allowed to enter the imperial university.

ROUMANIA.

Arrangement of school years.

Age of pupil.	School year.	Primary school.	Secondary school.	
			Gymnasium.	Lycée.
6-7.....	First....	1	.....	.....
7-8.....	Second..	2	.....	.....
8-9.....	Third....	3	.....	.....
9-10.....	Fourth..	4	.....	.....
10-11.....	Fifth....	(5)	1	.....
11-12.....	Sixth...	.....	2	.....
12-13.....	Seventh..	.....	3	.....
13-14.....	Eighth..	.....	4	.....
14-15.....	Ninth....	.....	(5)	1
15-16.....	Tenth....	.....	.....	2
16-17.....	Eleventh..	.....	.....	3
17-18.....	Twelfth..	.....	.....	4

The schools of Roumania are divided into three groups: (a) Primary; (b) commercial, technical, and private; (c) secondary and higher.

The minister of public instruction has general supervision of all education and is officially advised by a general educational council. This council is divided into three groups. Each group has general supervision over one of the types of schools enumerated above. There are also general and district inspectors for both the primary and the secondary schools.

The primary and the secondary schools are free, and education is compulsory between the ages of 7 and 14 years.

In the cities the primary school course is 4 years in length, and the school year is 10 months. In rural communities the course is 5 years in length, and the school year is 9 months.

The secondary schools are of two kinds: The gymnasium and the lycée. In some cities both types are found in the same school. Pupils may be admitted to the gymnasium by examination or upon presentation of a certificate from the primary school. Admission to the lycée is by certificate from the gymnasium.

There are three parallel courses in the lycée, somewhat as in the French schools. A pupil may elect the mathematics-science course, the Latin-science course, or the classical course. Only a few of the public secondary schools are for girls.

A pupil who does not expect to go to a university spends five years in the gymnasium instead of entering the lycée.

RUSSIA.

Arrangement of school years.

Age of pupil.	School year.	Primary school.	Real-schule.	Gym-nasium.
7-8.....	First....	1	.....	.....
8-9.....	Second..	2	.....	.....
9-10.....	Third...	3	.....	.....
10-11.....	Fourth..	4	1	1
11-12.....	Fifth....	(5)	2	2
12-13.....	Sixth...	(6)	3	3
13-14.....	Seventh..	.....	4	4
14-15.....	Eighth...	.....	5	5
15-16.....	Ninth....	.....	6	6
16-17.....	Tenth...	.....	7	7
17-18.....	Eleventh..	.....	(8)	8

Primary instruction in Russia is under either the minister of public instruction or the Holy Synod.

The schools under the direction of the Holy Synod bear about the same relation to the other schools that the church schools of England bear to the public schools. The synod manages the schools through the bishop and the clergy.

The primary schools usually have courses of three or four years, but in some cities the course is five or six years in length. Five periods a week are devoted to arithmetic.

The secondary schools are of two types, the classical gymnasium and the modern gymnasium.

Gymnasias for girls are quite numerous, and the course of study indicates that quite a high standard is sought. Most gymnasias for women have courses seven years in length. There are some gymnasias with three and four year courses.

The following table indicates the number of periods per week devoted to mathematics in each of the types of secondary schools:

Periods per week in mathematics.

	First year.	Second year.	Third year.	Fourth year.	Fifth year.	Sixth year.	Seventh year.	Eighth year.
Classical gymnasium	4	4	4	4	5	4	3	4
Modern gymnasium	4	4	4	4	4	4	3	3

SWEDEN.

Arrangement of school years.

Age of pupil.	School year.	Primary school.	Real- schule.	Gymna- sium.
6-7.....	First.....	1		
7-8.....	Second....	2		
8-9.....	Third.....	3		
9-10.....	Fourth....	4	1	
10-11.....	Fifth.....	5	2	
11-12.....	Sixth.....	6	3	
12-13.....	Seventh....		4	
13-14.....	Eighth....		5	
14-15.....	Ninth.....		6	1
15-16.....	Tenth.....			2
16-17.....	Eleventh...			3
17-18.....	Twelfth...			4

Periods per week in mathematics.

Gymnasia.	Classes.			
	First.	Second.	Third.	Fourth.
Realgymnasium	7	6	6	6
Latin gymnasium.....	5	4	4	5

Pupils usually enter school at the age of 6 or 7, and attendance is compulsory up to the age of 14. The school year is 34½ weeks in length. Both the church and the school are under the supervision of the same department of the Government.

The primary school has a six years' course. The parish is usually the school district, and instruction is carried on under the supervision of local inspection and of inspectors appointed by the Government. Coeducation is common in the primary schools of the rural districts. From five to seven periods per week are devoted to mathematics in the primary school.

The higher school is divided into the Realschule and the Gymnasium. The aim of the Realschule is to provide a general practical education beyond the primary school. The course of six years is concluded without an examination. In all Realschulen four or five periods per week are devoted to mathematics.

After completing the first five years of the Realschule, a pupil may enter the first year of the Realgymnasium or of the Latin Gymnasium, instead of taking the sixth year of the Realschule. In the Gymnasium pupils are urged to take subjects for which they have special talent, and considerable freedom to discontinue a subject is permitted.

The school day for secondary schools begins at 7.45 in the morning and must not be longer than six periods of 45 minutes each.

With the exception of a few of the public Realschulen, all of the secondary schools are for boys only, and a small fee is charged. Most of the higher schools for girls are private, and they are taught almost exclusively by women.

Any pupil who is successful in passing the examinations at the close of the last year in the Gymnasium is permitted to enter the university.

SWITZERLAND.

Arrangement of school years.

Age of pupil.	School year.	Primary school.	Lower middle school (Sekundarschule).	Higher middle school.	
				Gymnasium.	Realschule.
6-7.....	First.....	1			
7-8.....	Second.....	2			
8-9.....	Third.....	3			
9-10.....	Fourth.....	4			
10-11.....	Fifth.....	5	1		
11-12.....	Sixth.....	6	2		
12-13.....	Seventh.....		3	1	
13-14.....	Eighth.....		4	2	
14-15.....	Ninth.....		(5)	3	1
15-16.....	Tenth.....			4	2
16-17.....	Eleventh.....			5	3
17-18.....	Twelfth.....			6	4
18-19.....	Thirteenth.....			7	5

The Cantons differ greatly in the number of periods per week devoted to mathematics. In the primary school one period daily is the general rule.

The following table shows the number of periods per week devoted to mathematics, including bookkeeping, in the literary Gymnasium, Realgymnasium, and Realschule of Zurich.

Periods per week in mathematics.

	Years.						
	First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.
Literary Gymnasium.....	5	5½	3	3	3½	4	1½
Realgymnasium.....	5	5½	6	5½	5½	4½	2½
Realschule.....	9½	8	9	9	5½		

Although each of the 25 Cantons of Switzerland is autonomous in all matters pertaining to education, there are some similar features in the various school systems.

In most of the Cantons the legislature appoints a general director of education, but in some Cantons this authority is vested in an educational council. Most of the Cantons have special inspectors for each type of school.

The chief characteristic of education might be said to be its variability. This is caused by the great geographical, economic, and religious differences prevailing in the various Cantons. There is considerable dissatisfaction in Switzerland because of the great variety in educational systems, and there is a tendency toward centralization of authority in education. The school year varies from 38 to 48 weeks.

The primary schools are said to be unusually efficient in the training they give. The entering age varies from 6 to 7 years in the different Cantons, and the course is six years in length. All primary schools are free, and coeducation predominates except in the large cities.

In many Cantons a pupil who has completed the fourth year of the primary school may enter an advanced school called the lower middle school or the Sekundarschule. In this school one or more foreign languages and algebra are taught. In some Cantons a pupil enters this type of school after completing the sixth year of the primary school. The course is then from three to five years in length. These schools correspond to the Bürgerschulen in Germany and Austria and to the upper primary schools in France.

A pupil who has completed the six-year course of the primary school may enter the higher middle school. There are many names used in the various Cantons for the

different types of schools of secondary grade, but most of these schools may be called either Gymnasias or Realschulen. The Realschulen of Switzerland correspond to the Oberrealschulen of Germany. In French Switzerland there is even more differentiation of courses than in German Switzerland, and many of the secondary schools resemble the French lycées.

Zurich is the largest of the Cantons, and the system there may be taken as roughly typical. There are three types of secondary schools in Zurich: (a) Literary Gymnasium, (b) Realgymnasium, (c) Realschule. A pupil who has completed a six-year course in the primary school may enter either type of Gymnasium. To enter the Realschule a pupil must have completed not only a six-year course in the primary school, but he must have had two additional years in some secondary school.

[For arrangement of school courses in the United States, see note on page 6.]

TABLE 1.

Table 1 is a graphic representation of the arrangement of the school years in different countries. A heavily dotted line indicates that in *some* cases the type of school under consideration extends over the period represented.

The table portrays general conditions and not exceptional cases.

TABLE 1.—Arrangement of school years.

[illegible]

TABLE 1.—Arrangement of school years—Continued.

Age.....	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19
School year.....	1	2	3	4	5	6	7	8	9	10	11	12	13
<i>Holland:</i>						.							
Primary, 6-year.....													
Bürgerschule, 2-year..													
Middle, 5-year.....													
Gymnasium, 6-year...													
<i>Hungary:</i>													
Volksschule, 6-year...													
Bürgerschule, 4-6-year													
Gymnasium, 8-year...													
Realschule, 8-year....													
<i>Italy:</i>													
Elementary, 6-year...													
Ginnasio, 5-year.....													
Liceo, 3-year.....													
Modern, 7-year.....													
<i>Japan:</i>													
Ordinary Primary, 6- year.....													
Higher Primary, 3- year.....													
Middle, 6-year.....													
<i>Roumania:</i>													
Primary, 5-year.....													
Gymnasium, 5-year...													
Lycée, 4-year.....													
<i>Russia:</i>													
Primary, 3-5 year....													
Realschule, 7-8 year..													
Gymnasium, 8 year...													
<i>Sweden:</i>													
Primary, 6-year.....													
Realschule, 6-year....													
Gymnasium, 4-year...													
<i>Switzerland:</i>													
Primary, 6-year.....													
Lower Middle, 5-year..													
Gymnasium, 7-year...													
Realschule, 5-year....													
<i>United States of America:</i>													
Elementary, 8-year...													
Secondary, 4-year.....													

II. THE WORK IN MATHEMATICS IN THE FIRST SCHOOL YEAR.

AUSTRIA.—The pupils are taught to read and write numbers from 1 to 10, and the four fundamental operations are usually taught within these limits. In some schools the pupils learn to read and write numbers from 1 to 100 during the first school year. Simple problems involving denominate numbers familiar to the children are given. Most of the work is oral.

BELGIUM.—Pupils are taught to count and to read and write numbers from 1 to 20. Simple exercises involving numbers within these limits are given. The reading and writing of numbers is often extended to 100. Objects are freely used to develop the number concepts. From four to five periods a week are usually devoted to arithmetic.

DENMARK.—The first year's work includes the reading and writing of numbers from 1 to 10, and the four fundamental operations involving numbers within these limits. In a few schools the limit is extended to 20. The concepts $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$ are taught. Almost all the work is oral and objects are freely used. Arithmetic is taught five periods a week to boys and four to girls.

ENGLAND.—The third grade of the infant department corresponds to the first school year in the United States. Pupils are taught to count from 1 to 10 and from 10 to 1. The various numbers from 1 to 10 are factored. No formal addition or subtraction is taught. Only the simplest exercises are given. The pupils play store, dominos, and various other games. Measurement, using the foot, inch, and half-inch is taught, and pupils learn to estimate small distances. The terms half and quarter are taught by means of paper folding and by the use of numerous objects.

FINLAND.—In the city schools the pupils are taught to count and to read and write numbers from 1 to 100. The most common measures are taught.

In the country schools the reading and writing of numbers from 1 to 100 are taught and addition and subtraction involving numbers less than 20 are studied. The meaning and use of the terms meter, liter, kilogram, and mark are also taught.

FRANCE.—The course includes the reading and writing of numbers from 1 to 100, and the four operations involving the numbers to 10. The terms meter, liter, and franc are taught and extensively used. The fractions $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$ are taught. Almost all of the work is oral.

GERMANY.—The number scale from 1 to 20 is taught, and addition and subtraction of numbers within this limit.

In some of the German States the multiplication table of twos is taught during the first school year. The terms meter, decimeter, pound, and mark are usually taught.

In a few of the States the number scale is taught only from 1 to 10, but all four operations are taught within these limits.

From three to four periods a week are devoted to arithmetic.

HOLLAND.—The course is practically the same as in Belgium. The numbers from 1 to 20 are studied synthetically. From 20 to 100 the tens are studied before the intermediate numbers. Four to five periods a week are given to the subject.

HUNGARY.—The course is practically the same as in Austria. The simple number relations involved in the activities of the home and the school are emphasized.

ITALY.—The pupils are taught to read and write numbers from 1 to 100 and to perform the four operations on numbers from 1 to 20. Most of the work is oral.

JAPAN.—The course includes the reading and writing of numbers from 1 to 100 and the four operations on numbers less than 20. Most of the exercises are in addition and subtraction. A few simple exercises with numbers between 20 and 100 are given.

Five periods a week for 40 weeks are usually devoted to arithmetic.

NORWAY.—(No report is available.)

ROUMANIA.—(The report does not include the work of this school year.)

RUSSIA.—(Details of the work of the first school year are not available; see the third school year.)

SPAIN.—(There is no report on the work of the elementary school.)

SWEDEN.—The pupils are taught to read and write numbers from 1 to 100, and to solve simple oral problems involving numbers of one digit.

SWITZERLAND.—The pupils are taught to read and write numbers to 100, and to perform the four operations on small numbers.

UNITED STATES.—In many of the schools of the United States only incidental number work is given during the first school year. In some schools regular number work is begun the latter half of the first year. In a few schools incidental number work is given during the first two school years.

A great variety of courses exists in those schools which provide special periods for number work during all or a part of the first school year. The following outline is from the New York State course of study. It represents one of the most advanced courses.

Pupils are taught to count, read, and write numbers to 100 and to memorize the 45 addition combinations. The drill in these combinations is given in such a way as to prepare for subtraction as well as addition. Pupils learn to count 100 by twos, fives, and tens. The children are taught to carry in addition. No attempt is made to teach the science of numbers; the art of computation is emphasized. Oral work greatly predominates, but a good deal of seat and blackboard work is given.

GENERAL SUMMARY OF THE FIRST YEAR'S WORK.

There is not much divergence between the courses in arithmetic in the most progressive schools of the various countries. In general it may be said that the aim is to teach the children to count and to read and write the numbers to 100; to perform easy additions and subtractions within these limits; to know the fractions $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$; and to make a few easy multiplications and divisions involving numbers less than 20. Practically all the work is oral, and objects are freely used.

III. THE WORK IN MATHEMATICS IN THE SECOND SCHOOL YEAR.

AUSTRIA.—Drill upon addition, subtraction, multiplication, and division is continued, and the exercises involve numbers from 1 to 100. The reading and writing of numbers is extended to 1,000. The pupils are taught the use of the common measures.

BELGIUM.—Knowledge of the number scale is extended to 100, and pupils frequently learn to write numbers to 1,000. The four operations involving numbers not greater than 100 are taught, and place value is emphasized. The multiplication tables through 10 times 10 are built up and learned. Considerable attention is devoted to the small fractions in common use. Both oral and written exercises are given, but the oral work largely predominates.

In boys' schools four hours a week and in girls' schools three hours are devoted to the study of arithmetic.

DENMARK.—The four fundamental operations are taught simultaneously for numbers up to 100. The pupils usually learn to read numbers to 1,000. The work in division includes divisors of only one figure.

Danish money is studied, and the following terms are learned and used: Meter, decimeter, centimeter, kilogram, liter, dozen, year, month, week, and day. Simple reductions in the metric system are taught. The fractions $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, and $\frac{1}{10}$ are taught objectively and are used in simple computations.

ENGLAND.—The year that most nearly corresponds to our second school year is called "Standard I." This is usually preceded by at least two years in the infant department. During this period a good deal of incidental number work is given.

The general practice is to teach the reading and writing of numbers from 1 to 100. The course includes addition and subtraction of two numbers of one digit each, but no formal multiplication or division is given. Rapid addition and subtraction are

emphasized. These processes are taught on the "completion of the ten" system. The fractions $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$ are taught.

A good deal of attention is given to the drawing of the simplest geometrical figures and to estimates of length. Such objects as cubes, bricks, and coins are extensively used.

FINLAND.—The course includes the four fundamental operations involving numbers not greater than 100, and the reading and writing of numbers to 1,000.

The common measures of length, weight, volume, and capacity are also taught.

FRANCE.—The pupils are taught to count and write numbers to 1,000. The four fundamental operations involving easy combinations with numbers less than 100 are taught. Division is limited to divisors of one figure.

The terms meter, liter, gram, franc, and their easy multiples and submultiples are learned. Pupils learn to construct squares, rectangles, and triangles. A good deal of emphasis is put upon simple estimates and measurement.

Forty minutes a day are usually devoted to the study of arithmetic.

GERMANY.—The reading and writing of numbers is extended to 1,000, and numerous oral exercises involving the four operations with small numbers are given. The operations are proved by reversing. Special emphasis is put upon the multiplication and division tables up to five. The fractions $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$ are taught and used in easy problems. The terms mark, pound, meter, and centimeter are taught. The pupils are required to do a good deal of measuring and estimating. Rhymes and games are used to fix the sequence of numbers and their combinations.

In all the States oral arithmetic greatly predominates. In a few States special emphasis is put upon the fractional parts of small numbers, and upon counting to 100 by fives and tens.

HOLLAND.—The pupils are taught to count, read, and write numbers to 1,000. The four fundamental operations are quite thoroughly taught for numbers less than 100. A good deal of emphasis is placed upon the common denominate numbers.

In Amsterdam four and one-half hours a week are devoted to arithmetic.

HUNGARY.—(See the course in Austria.)

ITALY.—The course includes the reading and writing of numbers to 1,000, and oral exercises involving the four operations on numbers less than 100. In multiplication and division the multiplier and divisor are limited to one-digit numbers. The fractions $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$ are taught objectively. The elementary notions of units of weight, length, and capacity are taught. Numerous easy practical problems are given.

JAPAN.—Notation and numeration are taught to 1,000. Pupils are taught to count by tens to 1,000. Oral addition and subtraction involving numbers less than 100 and multiplication and division by easy two-figure numbers are taught. The use of the abacus makes the learning of the tables beyond the nines useless. The tables and the inverse operations are begun in this grade.

The school year is 10 months, and 6 periods a week are devoted to arithmetic.

NORWAY.—(No data are available for this year.)

ROUMANIA.—(No data are available for this year.)

RUSSIA.—(See the report for the third school year.)

SWEDEN.—Pupils learn to count, read, and write numbers to 1,000; to perform the four operations orally on numbers less than 50, and to perform them in writing on numbers less than 100. The multipliers and divisors are always single digits or multiples of 10. The simplest common measures are studied and the easiest fractions are taught.

SWITZERLAND.—Details of the course for the second year are not given in the reports. Oral arithmetic is the basis of the work throughout the primary grades, and great emphasis is put upon easy practical problems within the experience of the child.

UNITED STATES.—In the New York State course there is continued drill on the use of the 45 combinations in addition and subtraction. There is also drill on series in addition and counting by twos, threes, fours, and fives. The addition method is used in subtraction. There is continued drill in rapid additions. The pupils memorize the 45 combinations in multiplication. These are so taught as to prepare for division at the same time. The process of carrying in multiplication is taught. Good model forms are extensively used. No explanation of the processes is attempted.

GENERAL SUMMARY OF THE SECOND YEAR'S WORK.

The course of the second school year varies more than that of the first year. In general, the aim of the work may be said to be to teach the children to count, read, and write numbers to 1,000; to perform the fundamental operations on numbers less than 100; and to learn the simple units of measure. In several countries, multipliers and divisors are limited to one figure. The pupils are taught to count to 100 by twos, fives, and tens. The 45 addition combinations are learned in this year and the multiplication tables involving products up to 10 times 10 are usually studied.

Subtraction is usually taught by the addition method and is studied at the same time as addition. The fractions $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$ are taught, and objects are very extensively used. The simple denominate numbers are studied and much attention is devoted to measures and estimates. Oral work predominates. Numerous concrete problems involving the experiences of the pupils are given.

The course in the most progressive schools of the United States compares favorably with the most advanced courses in Europe. In the great majority of the schools of the United States, however, not so much is attempted in arithmetic as in the best schools of Europe during the second school year. The longer school year and the longer school day enable the European teachers to devote more time to drill in fixing the number facts, and the pupils leaving the second grade there are probably more thoroughly grounded in the fundamentals than is the case in this country.

IV. THE WORK IN MATHEMATICS IN THE THIRD SCHOOL YEAR.

AUSTRIA.—A great deal of emphasis is put upon speed and accuracy in the four fundamental operations. A large amount of oral drill is given, and numerous exercises are solved at the blackboard or on paper.

The fractions include all those with denominators less than 10. Simple exercises involving these fractions are given. Exercises involving simple estimates and measurements are frequently given.

BELGIUM.—The pupils are given an intuitive and practical knowledge of the terms meter, liter, gram, and franc, and of their multiples and submultiples. The units of measure are put into the hands of the pupils whenever practicable. The four operations are explained, and computation is extended to large numbers. The decimal notation is introduced, and the various operations are involved in problems. Emphasis is put upon easy, practical problems. The textbook is first used in this grade. In the boys' schools four hours a week and in the girls' schools three hours are devoted to the study of arithmetic.

DENMARK.—Notation and numeration are extended to 10,000. Place value, in the reading and writing of numbers, is emphasized. The four operations are taught, using both abstract and concrete numbers. Multipliers and divisors not exceeding two figures are used, except in the case of powers of 10. The terms day, week, hour, minute, second, meter, kilometer, millimeter, hectometer, decimeter, gram, kilogram, and ton are taught, and are used in numerous problems. Simple exercises

involving easy fractions are given. There is daily oral and written drill on the multiplication tables.

Five hours a week are devoted to arithmetic.

ENGLAND.—In Standard II the course includes the reading and writing of numbers from 1 to 1,000. The four operations are extended to include addition of hundreds, multiplication of tens by units and of hundreds by easy tens; subtraction of tens and easy hundreds; division of tens and easy hundreds by units.

The fractions $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$ are used in easy additions, subtractions, multiplications, and divisions. The tape measure and ruler are extensively used, and the pupils are taught the following terms: Yard, foot, inch, one-half inch, pound, and one-half pound. They are also taught the values of the various English coins.

A good deal of attention is devoted to the drawing of the simplest geometrical figures. The pupils are required to draw rectangles and squares of given dimensions. Squared paper is rather extensively used in these drawings. The pupils are taught the right angle and how to divide angles by means of paper folding.

FINLAND.—Place value is carefully explained. The four operations are extended to 1,000, for both abstract and concrete numbers. The common units of length, weight, and capacity are taught, and numerous exercises involving these measures are given.

Four hours a week are given to arithmetic.

FRANCE.—A thorough review of the work of the previous grade is given, and the operations are extended to large numbers. The general ideas of fractions are introduced. Simple reasoning problems are given, the data being selected from matters within the experience of the child. The pupils make numerous estimates and comparisons of distances, the metric units being used. Exercises involving the most elementary plane figures are given, and the various kinds of angles are studied. The simplest solids are studied from models.

Forty minutes a day are devoted to the study of arithmetic.

GERMANY.—The number scale is extended to 1,000 and the pupils are taught to count by 10, 50, and 100. Oral addition and subtraction are extended to numbers of two digits, and written addition and subtraction to numbers of six digits. Multiplication up to four-place numbers by two-place numbers is taught. Division of numbers containing from two to six figures by numbers of one figure and by easy tens is taught. The terms mark, pound, meter, centimeter, liter, hectoliter, gram, kilogram, and kilometer are taught, and are used in numerous exercises. The four operations involving units of length and weight are given a good deal of attention.

There are in Germany numerous collections of problems designed to give facility in oral computation.

In most of the German States, five hours a week are devoted to the study of arithmetic.

HOLLAND.—The course is practically the same as in Belgium. Exercises involving the four operations with all numbers are given. Much emphasis is placed upon the various weights and measures.

Five hours a week are given to arithmetic.

HUNGARY.—(For details, see the course in Austria.) The problems are chosen almost entirely from practical life. There is a good deal of freedom and variation in courses.

ITALY.—Notation and numeration are extended to 10,000. Numerous oral exercises on numbers less than 100 are given. The written exercises involve numbers up to 1,000. Multipliers and divisors are usually small or else a multiple of 10. The decimal notation is introduced and easy common fractions are reduced to decimals. A good deal of attention is given to practical exercises involving the metric system. Some of the elementary notions of geometry are derived by intuition. Free-hand drawing is emphasized.

JAPAN.—Notation and numeration are extended to 10,000. Oral and written exercises involve all four operations. The chief aim of the year is to teach written addition, subtraction, multiplication, and division with numbers less than 10,000.

From five to ten minutes' oral drill is given daily to help fix the number facts firmly in mind.

NORWAY.—(No data are available on the work of this year.)

ROUMANIA.—(No data are available on the work of this year.)

RUSSIA.—The course for the first three school years includes the four operations for abstract and concrete numbers and the easiest fractions. The tables of weights and measures and of Russian money are taught. There are numerous collections of good problems for use in the primary schools. The fundamental ideas of geometry are taught by means of paper folding and cutting, using squares, rectangles, and simple solids. The pupils do not use a textbook.

Five hours a week are given to arithmetic.

SWEDEN.—(The course is not given in detail. See the sixth school year.)

SWITZERLAND.—Notation and numeration are taught to 1,000. Mental arithmetic is the basis for all work. Calculation, and not reasoning, is emphasized. All the operations are taught.

UNITED STATES.—(New York State course.) Drill in counting is continued. The pupils are taught to count by fives to 100, beginning with 0, 1, 2, 3, or 4, and by sixes, beginning with each of the numbers from 0 to 5, inclusive. In short division, 2, 3, 4, 5, 6, 7, 8, and 9 are used as divisors. Multiplication, with two or more figures in the multiplier, is taught. Definitions of the terms addend, sum, minuend, subtrahend, remainder, multiplicand, multiplier, product, dividend, divisor, and quotient are learned. Pupils are taught to measure, using the inch and the foot. Square inch and square foot are also taught. The fractions $\frac{1}{2}$ and $\frac{1}{4}$ are applied to the use of the linear unit in measuring.

During the second half of the year the following topics are taught: Long division, multiplication tables of the tens, elevens, and twelves, and their use as divisors in short division; tests for divisibility by 2, 3, 5, 9, and 10; the definition of factor and prime factor. The pupils memorize the prime factors up to 25; linear and square measurement of objects in the school room, and liquid measure are taught.

A great deal of attention is given to oral drill and written work for accuracy and rapidity in the four operations. At the close of the year the pupil is expected to be able to add, subtract, multiply, and divide integers with accuracy and facility.

GENERAL SUMMARY OF THE THIRD YEAR'S WORK.

There is greater variety in the third-year courses than in those of the first and second school years. In a few of the countries—for example, Belgium and Italy—the notation of decimal fractions is introduced. This is usually not done in the United States until the latter part of the fourth or the early part of the fifth year. It is a common practice abroad to introduce fractions with denominate numbers. In all of the European countries and in Japan oral arithmetic greatly predominates. In Japan a special part of the recitation is set apart for this oral drill. The textbooks in several of the countries, notably Germany, Austria, and Italy, are collections of problems rather than expositions of number.

In most of the schools subtraction is taught by the addition method.

At the end of his third school year the German boy may either (1) continue in the Volksschule, (2) pass to the Bürgerschule, or (3) enter a secondary school (Gymnasium, Realgymnasium, or Oberrealschule). The Russian pupil may enter either the Realschule or the Gymnasium. If he prefers he may continue in the primary school a year or two more. In Sweden the primary school lasts six years, but a pupil may enter the Realschule after he has completed the third school year.

V. THE WORK IN MATHEMATICS IN THE FOURTH SCHOOL YEAR.

AUSTRIA.—Much attention is still given to speed and accuracy in the four fundamental operations. A large amount of oral drill is provided. The idea of fractions is extended, and decimal fractions are introduced. Numerous exercises involving easy operations with common and decimal fractions are given. The common units of weight, length, surface, capacity, and money receive a good deal of attention.

BELGIUM.—Common fractions are formally introduced, and the reduction of common fractions to decimal fractions is explained and practiced. Numerous practical problems involving the systems of weights and measures are given. The subject of decimal fractions is correlated with that of the metric system. The fundamental ideas of simple proportion are taught. Simple interest is begun.

DENMARK.—The four operations are extended to exercises involving large numbers. Multipliers with three and divisors with two figures are used. Addition, subtraction, multiplication, and division of denominate numbers are taught.

The concept of fraction is extended to include all fractions with denominators not greater than 10. The pupils are required to find fractional parts of a number.

The fundamental ideas of simple proportion are taught. The metric units are used in many of the problems.

ENGLAND.—The tens, hundreds, and thousands groups are studied. Much emphasis is laid upon the factors of numbers less than 100. Addition is extended to numbers of four figures, and subtraction is extended to hundreds and thousands. Multiplication by easy hundreds is taught, and division by easy factors is studied. The four operations are employed in problems involving money, yards, feet, inches, gallons, quarts, pints, pounds, and ounces. Ascending and descending reductions are presented. The pupils are taught to use the fractions $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{3}$, $\frac{3}{4}$, $\frac{1}{5}$ to $\frac{4}{5}$, and $\frac{1}{12}$ to $\frac{11}{12}$. Numerous problems involving these fractions are given, and they are represented on lines and by means of paper folding. The use of the measuring tape is taught.

The pupils are made familiar with the idea of bisection by paper folding. A study is made of squares and rectangles. The pupils are required to measure and compare the opposite sides and the diagonals. The equilateral and isosceles triangles are briefly studied. Figures are drawn to easy scales and simple geometric patterns are constructed.

FINLAND.—Both common and decimal fractions are taught during the year. Most of the common fractions have small denominators, and most of the exercises do not involve decimals of more than the third order. The pupils are taught how to reduce a common to a decimal fraction. The fundamental ideas of ratio and proportion are taught. Some very elementary problems are given in simple interest.

FRANCE.—The ideas of common fractions are extended, and decimal fractions are introduced. The four operations are applied to decimal fractions. The fundamental ideas of proportion are studied, and a few problems are given involving simple interest. There is a good deal of attention given to problems involving the legal systems of weights and measures, and the four operations are involved in many mental problems. Pupils are required to represent at the board and on paper the simple geometric figures and to study from models the fundamental properties of the cube, prism, cylinder, and sphere. The texts include numerous problems relating to losses caused by alcoholic drinks.

GERMANY.—In Germany a pupil generally spends his fourth school year in the *Volksschule*, the *Gymnasium*, the *Realgymnasium*, or the *Oberrealschule*, although, as in other countries, there are other types of schools which he may attend.

Course in the Volksschule.—Oral multiplication by 12, 15, and 25 is presented. The four operations with denominate numbers are studied. Simple problems involving frac-

tions are given. Notation and numeration are extended up to seven places. Continual practice is given in the four operations. Multiplication involves multipliers of four digits, and division involves three place divisors.

Decimal fractions are taught to three decimal places, and the subject is closely correlated with the metric system. Denominate numbers are frequently written in decimal form. Ascending and descending reduction are applied to the metric system. Addition and subtraction of common fractions are taught, and aliquot parts are freely used.

In some of the German Volksschulen formal written arithmetic begins with this grade. Applications are postponed until the processes are fixed.

Course in the Gymnasium.—The four fundamental operations with abstract and denominate numbers are extensively drilled upon. The simple measures of weight, length, capacity, surface, and volume are taught. Problems involving parenthesis are given. The ideas of common fractions are extended and decimals are given some attention.

Course in the Realgymnasium.—The course in this type of school is the same as for the Gymnasium.

Course in the Oberrealschule.—Four hours a week are given to arithmetic. The course includes drill in the four operations with abstract and denominate numbers; practice in decimal notation; the rules for divisibility by one place numbers; prime factors; multiples and divisors. The ideas of common fractions are extended. Oral arithmetic receives a good deal of emphasis.

HOLLAND.—The four operations with integers are thoroughly reviewed. Emphasis is placed upon denominate numbers and the various common units of measure.

The concept of fractions is extended; decimal fractions are taught and pupils reduce common to decimal fractions. The rectangle, cube, and parallelopiped are studied.

Four and a half hours a week are given to arithmetic.

HUNGARY.—The attempt is made to secure a high degree of accuracy and a fair degree of speed with the four operations. A thorough study is made of denominate numbers and the simple units of measure. The decimal notation is taught and the concept of common fraction is extended. The pupils learn how to reduce a common to a decimal fraction.

ITALY.—The written work includes the four operations with integers and decimal fractions; the reduction of a common to a decimal fraction; a study of the Roman numerals; and numerous practical exercises on the metric system.

The pupils are taught the fundamental properties of the simple geometric figures. Free-hand drawing forms an important part of the work. The rules for the mensuration of the common plane figures and the names of the solids are taught.

JAPAN.—The chief aim of the work of the fourth school year is to secure a high degree of accuracy and speed in computations involving numbers less than 100,000,000 and to teach computation with compound and decimal numbers.

Multipliers are usually of two or three digits, and divisors and quotients are usually of not more than three digits. The pupils are taught to find a fractional part of a number.

In compound numbers the units of length, distance, weight, capacity, area, time, and money are taught.

Decimal notation is taught only to thousandths in this school year.

NORWAY.—(No report.)

ROUMANIA.—The four operations are extended to larger numbers; the decimal notation is introduced, and the relation between common and decimal fractions is emphasized. The various metric units are studied.

RUSSIA.—The Gymnasium and the Realschule begin with the fourth school year. A pupil may continue his course in the primary school. All courses for the fourth year are much alike. The four operations are emphasized. Common and decimal fractions are introduced. In the Gymnasium four hours a week are devoted to

arithmetic. Measurements and easy drawing to scale form an important part of the course.

SWEDEN.—The Realschule begins the fourth school year and lasts for six or seven years. Four hours a week are devoted to mathematics.

There is continued attention given to the four operations. Common and decimal fractions are introduced, and easy examples involving them are solved. Only integers are used as multipliers and divisors, and no remainders occur in the divisions. The study of the metric system is continued.

SWITZERLAND.—The attempt is made to develop speed and accuracy in the four operations with integers and denominate numbers.

The decimal notation is introduced, and the ideas of common fractions are extended. The four operations are taught for both integers and common fractions; only easy problems are considered. A good deal of attention is put upon estimates and drawing to scale.

UNITED STATES.—(New York State course). Roman numerals are taught from 1 to 100 and by hundreds to 1,000. The pupils learn to read and write United States money; to use cancellation, when possible, in the solution of problems; and to use the terms pint, quart, peck, and bushel. Common fractions are developed objectively. The pupils are taught to change fractions to equivalent fractions of higher and lower denominations; to add and subtract fractions the denominators of which do not contain more than two digits; to multiply a fraction by an integer and by a fraction, and to multiply an integer by a fraction; to divide a fraction by an integer and by a fraction, and to divide an integer by a fraction. The principles for multiplying or dividing a fraction by the proper operation upon its numerator or denominator are taught; also the effect of multiplying both terms of a fraction by the same number or dividing both by the same number.

There is continued drill throughout the year on the four operations with integers. Addition and subtraction of mixed numbers are taught. The pupils learn how to factor and to find the least common multiple of numbers to 100. Problems are carefully stated before being solved. Cubic measure is taught. Volumes studied include cubic inches, cubic feet, and cubic yards. Simple problems are given in bills and accounts.

GENERAL SUMMARY OF THE FOURTH YEAR'S WORK.

At the close of the fourth school year (in Germany, the third school year) the pupil may enter a "higher" school of some sort; in Austria the Gymnasium, the Realgymnasium, or the Realschule; in France, the higher primary or lycée; in Germany, the Gymnasium, the Realgymnasium, or the Oberrealschule; in Hungary, the Bürgerschule, the Gymnasium, or the Realschule; in Italy, the Ginnasio, or the modern school; in Roumania, the Gymnasium; and in Switzerland, the middle school. Conditions are such that pupils can not well enter a "higher" school except at the beginning; so that the fourth (or the third) school year is the last year of the primary for many European pupils.

The attempt is made to fix the four operations for abstract and denominate numbers firmly in mind by the time the pupil has completed his fourth school year. In all of the countries a large amount of both oral and written drill is provided. Speed and accuracy in the fundamentals are watchwords everywhere. In addition, the concept of common fractions is much extended, and the decimal notation is introduced. In several of the countries, only addition and subtraction of common and decimal fractions are taught, but in others multiplication and division are also included in the course. When this is done, only the easy cases are usually considered.

The general use of the metric system in the countries of Continental Europe makes the introduction of decimals practicable at an earlier date than in the United States. Usually the subject of decimal fractions is closely correlated with the metric system.

Most courses in the United States are not so advanced as the New York State course. In general, it may be said that the courses in European countries include all that is offered in the United States during the fourth school year and a good deal of the work of the fifth school year. The formal study of common or decimal fractions is seldom begun in the United States before the fifth school year.

In most of the European countries emphasis is put upon computation rather than upon reasoning during the first four school years.

VI. THE WORK IN MATHEMATICS IN THE FIFTH SCHOOL YEAR.

AUSTRIA.—The fifth school year is the last year of the Volksschule and the first of the Gymnasium, Realgymnasium, and Realschule.

Course in the Gymnasium.—The four operations with abstract and denominate numbers are continued. Roman notation is introduced. Austrian money, weights, and measures are studied. Common fractions are studied in connection with denominate numbers, most of the fractions being of small denomination; and the study of decimal fractions is continued.

The work in geometry is of a propædæutic nature. The cube and sphere are studied. Exercises with ruler, compasses, triangle, and protractor are given. A good deal of emphasis is placed upon the measuring and drawing of easy geometrical figures. The pupils are made familiar with the common solids. The constructions include angles of 30, 60, and 90 degrees; isosceles, equilateral, and right triangles; parallels; and perpendiculars. The pupils find the areas of squares and rectangles, and the volumes of cubes and right prisms.

Course in Realschule and Volksschule.—The course is practically the same as in the Gymnasium. Even more attention is put upon the securing of speed and accuracy in the four operations with integers and fractions.

Arithmetic is taught in very close connection with geometry in all types of schools. The two subjects complement each other and form one instruction unit.

The pupils make numerous simple models of pasteboard and sticks. Planes and solids are taken up in close connection, since the study is made from models.

Three hours a week are usually devoted to the study of arithmetic and one to geometry.

Course in Realgymnasium.—The course is the same as in the Realschule, except that there is no special period for the study of geometry.

BELGIUM.—The four processes with integers, common and decimal fractions are explained. Quotients are obtained correct to one-thousandth. Cancellation is extensively used. Pupils are taught the tests of divisibility for 2, 3, 4, 5, 8, 9, 25, and 125. Prime numbers are studied and applied to tests of divisibility by 6, 12, 15, 18, 21, and 35. Unitary analysis is taught. The problems are based largely on local industries, trades, and agriculture. The study of the metric system is continued. The mensuration of the rectangle, parallelogram, triangle, trapezoid, circle, and polygon is studied. Oral computation is emphasized, and short processes are encouraged.

Most of the teaching of geometric forms is done in connection with the metric system, manual training, and drawing.

DENMARK.—The pupils are taught to resolve numbers into prime factors. Addition and subtraction of common fractions are studied, and the study of decimal fractions is extended. Proportion is taken up, the fractional form of writing the proportion being used. The metric system is studied as a practical application of decimal fractions, and addition and subtraction of decimal fractions and multiplication and division of a decimal by an integer are taught.

Special periods are not devoted to the subject of geometric forms, but much is done in the drawing classes. Mensuration is taught in connection with arithmetic. The compasses are but little used.

ENGLAND.—Notation and numeration are extended to tens of thousands. Factors and easy long division are taught. Common fractions are studied, the denominators being restricted in most cases to numbers less than 12. Addition and subtraction of fractions are taught. Decimal fractions up to three decimal places are introduced, and the four operations involving decimals are taught by means of divided squares, rectangles, and rulers. Numerous problems involving distances and heights expressed in yards, feet, and inches are solved. The terms ton, hundredweight, chain, pound, ounce, gallon, quart, pint, month, day, hour, minute, and second are used in exercises. The method of unitary analysis receives a good deal of attention. The area of the square and the rectangle is taught, and the term perimeter is used. An attempt is made to give the pupil the idea of a standard pound and yard. Metric rulers are used, and pupils learn some of the equivalents. Calipers and wedges are used to determine internal and external diameters.

The work in geometry includes the bisection of lines, angles, and triangles by folding; the superposition of triangles; the use of compasses; folding circles to get angles of 180, 90, 45, and $22\frac{1}{2}$ degrees; the drawing of parallels by means of the set square and by the eye; the drawing of parallelograms, and drawing to scale.

FINLAND.—The course in arithmetic includes decimal and common fractions, tests of divisibility, simple proportion, introductory work in percentage, and simple interest.

One hour a week is given to the study of geometry. The course includes the study of lines, angles, rectilinear figures and their areas, curvilinear figures and their areas.

FRANCE.—The fifth school year is the first year of the higher primary and the first of the lycée. The higher primary is not found in all schools.

The course in the higher primary includes the following subjects: The study of prime numbers and tests for divisibility by 2, 3, 4, 5, 9, and 25; the resolution of numbers into factors; greatest common divisor and least common multiple; unitary analysis; the metric system; the four operations with common and decimal fractions. Letters are used in the solution of some simple problems.

The work in geometry is given in connection with drawing, and is frequently taught by the same teacher. The following figures are studied: Square, rectangle, triangle, circle, perpendiculars, obliques, parallels, and parallelograms. The pupils learn the relation of circumference and radius, the terms chord, arc, tangent, and secant. Angles are measured and there is a good deal of graphic construction. Very elementary projections are introduced.

In the first year of the lycée of France the pupils may enter either the classical or the scientific section.

In the classical lycée two hours a week are devoted to mathematics, and the course includes the study of integers, common and decimal fractions.

In the scientific lycée three hours a week are given to arithmetic and one to geometric drawing. The work in arithmetic includes the study of common and decimal fractions, the rule of three, problems in interest, and alligation.

In the work in geometrical drawing the pupils are taught to use the ruler and compasses, and to make simple designs.

GERMANY.—*Volksschule.*—The subjects of denominate numbers and common fractions are closely related, and pupils are given a good deal of practice in computation in both topics. All four processes are studied with both common and decimal fractions, and the pupils learn how to reduce a common to a decimal fraction. In some schools decimal fractions are studied before common fractions, and in others this order is reversed. The problems involve a good deal of computation with time. In a few of the States abridged multiplication and division are being experimented with.

Course in the Gymnasium.—The course includes the study of common and decimal fractions, simple proportion, tests of divisibility for numbers of one digit, prime numbers, factors, greatest common divisor and least common multiple, and the applications of fractions to simple proportion.

The instruction in geometry is of a propædæutic nature, and includes the study of straight lines, angles, and triangles. The pupils are taught to use compasses and ruler and to make easy constructions.

Course in Realgymnasium.—The course is practically the same as in the Gymnasium. More emphasis is put upon the subject of decimal fractions. Three hours a week are given to the work in mathematics.

Course in the Oberrealschule.—The course is the same as in the Gymnasium except that four hours a week are given to the work and more attention is devoted to oral arithmetic.

HOLLAND.—The course in arithmetic includes exercises and problems involving computations with integers, common and decimal fractions; simple problems in percentage; profit and loss; the elements of proportion; and the metric system.

HUNGARY.—The pupil in Hungary who has completed his fourth school year may continue for two years more in the Volksschule, or he may enter the Bürgerschule, Gymnasium, or Realschule.

The course in the Volksschule and in the Bürgerschule is the same. Four hours a week are devoted to the study of mathematics.

The four operations with decimal and common fractions are taught. The study of decimal usually precedes that of common fractions. Numerous problems are based on school and city statistics. The various units of measure are studied, and problems involving time, rate, and distance are based upon time tables. Originality is encouraged, and speed and accuracy are greatly emphasized. The heuristic method is extensively used.

The work in geometric drawing includes the use of the ruler and compasses; drawing from objects; a study of the simple plane and solid figures, such as the various quadrilaterals, polygons, triangles, circles, and right prisms. Pupils are taught to make easy designs and ornaments.

Three hours a week are usually devoted to the subject of geometric drawing.

Course in the Gymnasium and the Realschule.—The course is practically the same as the one above. Mathematical instruction in general is more extensive and more intensive in the Realschule than in the Gymnasium.

ITALY.—The pupil in Italy who has completed his fourth year may continue in the elementary school for two years, or he may enter the first year of the Ginnasio or of the modern school.

The course in mathematics is practically the same in all types of schools. In the Ginnasio one hour a week is specifically set aside for "practical arithmetic."

The course in the schools includes the following: The four operations with integers, common and decimal fractions; the metric system; business applications; simple proportion; simple interest; discount; profit and loss; rules for surfaces and volumes.

The course in geometry includes free-hand drawing and the making of easy constructions and models.

JAPAN.—The chief aim of the work of the fifth year is to teach computation with integers, decimal and compound numbers; to make the pupils proficient in the solution of applied problems, easy mensuration, and to acquaint the pupils with the metric system, English and American money, and the systems of measure of certain foreign countries.

The work in mensuration includes quadrilaterals, triangles, polygons, circles, and a few of the easier solids.

ROUMANIA.—The Gymnasium begins with the fifth school year. The four operations with integers, decimal and common fractions are emphasized. The metric

system is taught, and the common tests for divisibility of small numbers are introduced. The rule of three is taught and some easy problems in simple interest are given. Pupils learn the rules for the mensuration of quadrilaterals, triangles, circles, parallelopipeds, pyramids, cylinders, and cones. The course includes but little theory.

RUSSIA.—*Course for Gymnasium.*—Four hours a week are devoted to the study of mathematics. A good deal of emphasis is put upon the theoretical.

The course includes the four operations with common and decimal fractions; the metric system; tests for divisibility by 2, 3, 4, 5, 6, 8, 9, 10, 12, and 15; highest common factor, and least common multiple.

The course in the Realschule is the same as above, and the same number of hours is devoted to mathematics.

SWEDEN.—The course includes the four operations with common and decimal fractions, reduction of fractions, the metric system, and simple problems in percentage.

The course is practically the same in the second year of the Realschule and the fifth year of the primary school.

SWITZERLAND.—A pupil who has completed the fourth school year may continue in the primary school for two years more or he may enter the middle school.

The course is practically the same in both. Four hours a week are given to the subject.

The four operations with integers, common and decimal fractions, and reduction of fractions are taught. The fundamental ideas of ratio and proportion are studied. Simple problems in percentage are given. Interest and simple accounts are studied.

The work in geometry includes the study of lines, angles, quadrilaterals, triangles, polygons, circles, linear and surface measure.

UNITED STATES. (New York course of study).—The pupils are taught how to read and write decimal fractions and to reduce common to decimal and decimal to common fractions. The four fundamental operations with decimal fractions are presented, and the common aliquot parts are studied. The tables for linear, square, and cubic measure are reviewed. Ascending and descending reductions involving the various tables of denominate numbers are taught. Square measure is applied to finding the area of squares, triangles, rectangles, and to problems of painting, papering, and plastering. Cubic measure is applied to finding the volume of rectangular solids, the capacity of bins and cisterns, and the cost of masonry. Many problems are given involving avoirdupois, dry and liquid measure, English money, time and circular measure. Numerous problems involving reductions are given. The value of the franc, pound, and mark in United States money is learned. Problems involving simple bills and accounts are given.

GENERAL SUMMARY OF THE WORK OF THE FIFTH SCHOOL YEAR.

The work of the fifth school year in most European countries is decidedly more extensive than in most of the schools of the United States. It is unusual in this country for the general ideas of percentage to be introduced before the sixth school year. In several of the European countries this work is introduced during the fifth school year. Proportion is rarely introduced in this country in the fifth school year, but it is not uncommonly introduced in that year abroad. Tests of divisibility and prime factors are given much more attention in the European countries than here.

The general use of the metric system gives the European teacher an excellent field of application for decimal fractions, and the two topics are closely related.

Common fractions and denominate numbers are more closely related than is usually the case in the United States.

Probably the most marked difference between fifth-grade work here and abroad is the large amount of time and attention put upon the propædæutic study of geometry in the European countries. Very frequently this work is given under the subject

of drawing, and when this is the case the arithmetic and drawing are usually taught by the same teacher.

It may be said, in general, that the work of the fifth year in the European schools is considerably in advance of the work in the schools of the United States. The courses abroad include all that is included in the fifth-year courses in this country and a good deal that is not included here.

VII. THE WORK IN MATHEMATICS IN THE SIXTH SCHOOL YEAR.

AUSTRIA.—*Course in Gymnasium.*—The topics of highest common factor and lowest common multiple are studied. Prime factors of large numbers are found and the general rules for fractional computation are explained and used in numerous problems. Pupils learn how to reduce a common fraction to a decimal and the reverse. Direct and inverse proportion are studied as an introduction to functional thinking. Unitary analysis is extensively used. There is almost daily drill in computing with denominate numbers and decimal fractions. Simple computations in interest are made.

Geometry.—The symmetry of plane and solid bodies is studied and the congruency of plane figures is established intuitively. Extensive use is made of indoor and outdoor measurements. Pupils learn to construct triangles, quadrilaterals, regular polygons, and circles. The fundamental properties of the right prism, cylinder, cone, and sphere are studied. The study of the sphere is closely related to the work in geometry. The study of geometric drawing is not obligatory in the Gymnasium.

Realschule.—The most important rules for divisibility and factoring are studied. The pupils learn how to find the highest common factor and the lowest common multiple of two or more numbers. All operations with common and decimal fractions are taught and used in numerous exercises. Ratio and proportion are studied as exercises in functional thinking. Problems in interest are solved by formulas and by proportion. The work in geometry includes the study of the symmetry of plane and solid figures, and the fundamental constructions of plane geometry, such as the bisecting of angles and the erecting of perpendiculars. The pupils learn how to construct the various kinds of triangles, quadrilaterals, and polygons. The terms cord, tangent, and secant are taught and used in constructions. A brief study is made of the fundamental properties of pyramids, prisms, cones, and spheres. The symmetry of the equilateral triangle is also considered. Some attention is devoted to familiarizing the pupils with the drawing instruments, and simple exercises are given involving constructions and designs. Three hours a week are devoted to instruction in arithmetic and two hours to geometric drawing. The instruction in both subjects is given by the same teacher.

Realgymnasium.—The course in the Realgymnasium is the same as in the Realschule, except that no particular hours are prescribed for the study of geometric drawing.

BELGIUM.—A thorough review of the four processes with integers, common and decimal fractions is given, and the study of the tests for divisibility is continued. The pupils learn how to find the highest common factor and the lowest common multiple of two or more numbers by the process of successive division. The study of unitary analysis is continued, and many practical problems are solved. A good deal of attention is given to problems proposed by the pupils. The study of quadrilaterals, polygons, and circles is continued. The pupils learn how to find the volume of prisms, cylinders, cones, pyramids, and spheres. Attention is directed to the relation between and measures of capacity and of volume. Oral arithmetic is given a good deal of atten-

tion, and abbreviated processes are encouraged. The utilitarian aim of arithmetic is kept constantly in mind, but the formal study of the subject is not neglected. Most of the teaching of geometry is done in connection with the work on the metric system, drawing, and manual instruction. Three hours a week are given to arithmetic.

DENMARK.—The pupil who has completed the first five school years may continue two years longer in the Folkeskole, or he may enter the intermediate school.

Course in the Folkeskole.—The four operations with common and decimal fractions are studied. Multiplication and division of fractions include only easy multipliers and divisors. The pupils learn how to reduce common fractions to decimal fractions and vice versa. Ratio and proportion are taught, and many of the exercises involve decimals. The fundamental ideas of percentage are presented, and pupils learn how to compute simple interest. The subject of profit and loss is the only other application of percentage presented in this grade. The mensuration of all plane figures is studied intuitively.

The course in the intermediate school is practically the same as in the Folkeskole. Four hours a week are devoted to the subject of mathematics.

ENGLAND.—The four operations with common and decimal fractions and their application to denominate numbers are given considerable attention. Unitary analysis is taught and cancellation is emphasized. The pupils are taught to find the highest common factor and least common multiple by inspection. The work in mensuration includes the area of the rectangle and parallelogram and the volume of the simplest rectangular solids. The callipers are used for determining internal and the wedge for external diameters. The use of the metric ruler is taught, and the equivalents for the common metric units are learned. The areas of parks and public grounds are found, and squared paper is used. Pupils are taught how to make simple invoices and bills, and to receipt bills.

The work in geometry includes the following: The intersection of planes, study of the surface and volume of the cone, cylinder, hemisphere, prism. The plumb line and spirit level are extensively used. Lines and angles are bisected by means of the compasses and by paper folding. The pupils cut circles to show angles of 180, 90, 45, $22\frac{1}{2}$, $67\frac{1}{2}$, $157\frac{1}{2}$, 270, 315, and 330 degrees. The protractor is also used.

A few simple problems in loci are given. These usually include the following:

- (a) The locus of points equidistant from the extremities of a given line.
- (b) The locus of points equidistant from three given points.

From these, pupils learn how to inscribe and circumscribe a circle. Equilateral and isosceles triangles are constructed, and the pupils discover the important facts relative to these by means of cutting and folding. Set squares are used for constructing parallels and parallelograms. The constructions for erecting a perpendicular at a given point and dropping a perpendicular from a given point are taught.

FINLAND.—The study of common and decimal fractions is continued. Simple and compound proportion are taught. The subject of percentage is introduced. The algebraic equation is introduced in connection with the work in arithmetic.

FRANCE.—*Higher primary school.*—In many schools the sixth school year is the last year of the higher primary. In some schools an additional year is given. Ratio and proportion are taught. Both direct and inverse proportion are studied. Abundant provision is made for drill in oral and written computation.

The elementary ideas of algebraic calculation are applied to positive and negative numbers, and simple algebraic problems in multiplication and division of polynomials are included in the course. Simple equations of the first degree are solved, and the applications of algebra to arithmetical problems are emphasized. Very easy equations of the second degree in one unknown are given some attention. The principles of arithmetical and geometrical progression are taught, and the pupils learn to use tables of logarithms to four and five places. These tables are used in computations in interest progressions and annuities.

Geometry.—The course includes the study of proportional lines and similar figures. A good deal of attention is devoted to graphic constructions. The pupils learn how to divide lines into proportional parts, to find the mean proportional and the fourth proportional. The method of constructing a triangle and a polygon similar to a given triangle and polygon is taught. Regular polygons, including equilateral triangles, squares, pentagons, and hexagons, are studied. The mensuration of the circle is taught, and the pupils learn how to find the approximate value of π (pi). The trigonometric functions sine, cosine, and tangent are taught, and a few simple formulas are used. The pupils learn the terms dihedral, trihedral, and polyhedral angles. The Euclidian geometry has been abandoned in some elementary schools, and the method of Meray is used. Three hours a week are devoted to geometric drawing and designs.

In the various types of special schools, such as the agricultural, industrial, and commercial schools, the mathematics is closely correlated with the practical subject emphasized in the school.

[NOTE.—The subject matter in this school year seems somewhat advanced and excessive. However, the above outline may be found on pages 24–26, Vol. I, *Rapports Enseignement Primaire*, Paris.]

Lycée.—In the classical lycée two hours a week are devoted to arithmetic, and in the modern language lycée four hours are given to this subject. One of these four hours is usually devoted to geometric drawing. The course in arithmetic includes the metric system, measures of time and velocity, the rule of three, some generalized arithmetic, and simple formulas. The course in algebra includes only simple problems involving equations of the first degree. In both types of lycée a great deal of attention is given to the subject of geometric drawing. The course in this subject includes the geometric representation and perspective drawing of the common geometric solids and numerous useful simple objects. Some attention is given to the representation of ornaments. By means of the ruler and compasses, architectural designs are made.

GERMANY.—*Volksschule.*—Drill in oral and written computations involving integers, common and decimal fractions is continued. Numerous problems involving prices, comparison of money values, and simple profit and loss are given. The subject of exchange is taught, and simple alligation is given some attention. Discount and simple interest are studied. Ratio is taught. Numerous problems are given which involve finding the approximate cost.

Geometry.—The serious study of geometry begins with the sixth school year. The pupils are taught to estimate the length of straight lines, to compute the cost of fences, rails, borders, etc. The terms angles, vertex, right, acute, obtuse, vertical, and adjacent are taught. By means of protractors pupils measure the sizes of angles. The theorems for the congruency of triangles and the theorem for the sum of the angles of any triangle are discovered intuitively. The pupils are taught how to compute the areas of triangles and the various kinds of quadrilaterals. Some attention is given to the study of the circle. The methods of drawing parallels and perpendiculars are taught, and the pupils learn how to construct the various kinds of triangles and quadrilaterals. These constructions are made with care, and are kept in good notebooks.

Gymnasium.—The course in arithmetic in the Gymnasium includes the multiplication and division of decimal fractions and the reduction of common to decimal fractions, and vice versa. A good deal of attention is devoted to abridged computation. Proportion is taught, and numerous problems involving the various systems of weights and measures are given. Percentage and simple interest are presented. Daily drill in oral arithmetic is usually provided.

The course in geometry is the same as the course in the Oberrealschule, which is given below.

In the Realgymnasium from three to six hours a week are devoted to the study of mathematics. The content of the course is the same as in the humanistic Gymnasium.

In the *Realschule* four hours a week are usually devoted to arithmetic and two to geometry. The course is practically the same as in the *Oberrealschule*.

Oberrealschule.—The time devoted to mathematics varies, but it is usually five or six hours a week. The course in arithmetic is practically the same as in the *Gymnasium*. Special attention is devoted to discount and business practice. Some practice is given in using letters in the solution of arithmetical problems.

Geometry.—The pupils are made familiar with the fundamental concepts of plane and solid forms. The course provides abundant practice with the ruler, compasses, and protractor. Simple problems involving surfaces and volumes are given. The pupils learn how to construct triangles from given parts. The congruency theorems are discovered intuitively. Special attention is devoted to the study of the right, isosceles, and equilateral triangles and to the volumes of the parallelogram and trapezoid. The properties of the circle are also considered, and elementary ideas of loci are presented. There is no sharp distinction between plane and solid geometry because of the propædæutic instruction in the subject. Two hours a week are usually devoted to geometry.

HOLLAND.—The sixth year is the last year of the primary school. A comprehensive review of the arithmetic of previous school years is given, and numerous practical applications are made. The pupils learn how to compute the surfaces and volumes of the simple solids. Unitary analysis is emphasized. The content of the course is very similar to that of the corresponding school year in Belgium.

HUNGARY.—The sixth school year is the last school year of the *Volksschule*. The course in the *Volksschule* and the *Bürgerschule* includes the study of the fundamental operations, with common and decimal fractions. Short cuts and numerous problems involving statistics of the home, the city, agriculture, and the industries are taught. Two hours a week are usually devoted to the subject.

Gymnasium.—Abridged multiplication and division are taught, and short cuts are given considerable attention. The subject of ratio and proportion is presented, and numerous problems involving percentage are based on economic conditions. Four hours a week are usually devoted to the study of arithmetic.

The course in geometry includes the study of cubes, prisms, pyramids, cylinders, cones, and spheres. The areas and surfaces of cubes, pyramids, cones, and spheres are determined, and pupils make models of all of these solids.

Realschule.—Four hours a week are usually devoted to arithmetic, and four hours to geometric drawing. The courses in both subjects are practically the same as in the *Gymnasium*.

ITALY.—The sixth school year is the last year of the elementary school. Unitary analysis, and simple and compound proportion are taught. Commercial arithmetic is especially emphasized. Numerous problems involving the various money systems are given. A comprehensive review of rules and principles learned in previous years is given. The pupils learn how to use the ruler and compasses, and many theorems of geometry are discovered intuitively.

JAPAN.—The sixth year is the last of the ordinary primary. The chief aim of the course is to give simple computations in common and decimal fractions, ratio and percentage, and to afford a comprehensive review of the arithmetic of the first five school years. The review is given the latter part of the year.

NORWAY.—(No report is available.)

ROUMANIA.—The course in arithmetic includes the four operations with integers, common and decimal fractions. The metric system, powers and factors, and the reasons underlying the processes are explained to the pupils. Applications of the metric system are especially emphasized during the sixth school year.

The course in geometry includes the intuitive study of angles, triangles, quadrilaterals, circles, parallels, and perpendiculars. The heuristic method is used, and most of the important theorems preceding the subject of similar figures in the Euclidian geometry are discovered. Simple constructions are given a good deal of attention.

RUSSIA.—Ratio, simple and compound proportion, interest and partial payments are taught. Four hours a week are usually devoted to the subject of arithmetic.

The course in algebra includes the solution of simple arithmetical problems by means of letters, the rules for signs, the four operations with monomials and easy exercises with polynomials.

Realschule.—Direct and inverse proportion, compound proportion, percentage and its practical applications, and alligation are taught. A comprehensive review of arithmetic is given.

The course in algebra includes all that is offered in the Gymnasium, and in addition to this, the squares and cubes of binomials of the types $(a \pm b)^2$, $(a \pm b)^3$ and easy equations of the first degree.

SWEDEN.—The sixth school year is the last year of the primary school. Arithmetic and geometry are closely correlated. Emphasis in arithmetic is placed chiefly on rapid and accurate computation with integers, common and decimal fractions, and their direct applications. Five or six hours a week are usually devoted to the subject.

Realschule.—The course in arithmetic includes the four operations with integers, common and decimal fractions, ratio and proportion, percentage and its application to interest, and the metric system. Proportion is usually introduced in connection with simple geometric problems.

The course in algebra includes the removal of parentheses, easy factoring, and simple reductions.

The course in geometry is of a propædæutic nature and includes mensuration and simple constructions. Five hours a week are devoted to the study of mathematics.

SWITZERLAND.—The sixth school year is the last of the primary school. A pupil must complete the work of the primary school before he can enter the Gymnasium.

The course in arithmetic includes the review of the four operations with integers, common and decimal fractions, the application of percentage to business, and applications of proportion to easy geometrical problems.

The course in geometry includes the intuitive study of the triangle, rhombus, rhomboid, and trapezium.

UNITED STATES.—(New York State course.) The subject of common fractions is reviewed, especial emphasis being placed upon the three problems:

- (1) To find a fractional part of a number.
- (2) To find what fractional part one number is of another.
- (3) Given a fractional part of a number and its relation to the whole, to find the whole.

Denominate numbers are reviewed, and drill is given on industrial problems demanding their use. The idea of percentage is introduced, and percentage is applied to profit and loss, trade and cash discount, commission, simple interest, and the making of promissory notes. Some problems are given in simple interest in which three of the elements principal, rate, time, and interest are given to find the fourth. The simple equation is introduced and used in the solution of some of the problems.

In some schools of the country the course includes, in addition to the above, the keeping of simple accounts, the making out and receipting of bills, and some simple measurements. These measurements are usually made in connection with the study of denominate numbers.

In many schools special provision is made for daily drill in oral computation.

GENERAL SUMMARY OF THE SIXTH YEAR'S WORK.

The course in mathematics in practically all of the European countries is decidedly more advanced than in the United States.

The sixth school year is the last year of primary instruction in many of the countries.

The courses abroad include all that is given during the corresponding school year in the United States and also many subjects that are not included in the course in this country.

One marked contrast to the work in this country is found in the emphasis that is put upon the function concept. This feature of the work is especially emphasized in the schools of Germany, Austria, and Hungary, but it is also given some attention in several other countries. In some countries the function concept is introduced in connection with the work in mensuration or graphs; in others, it is first presented with direct and inverse proportion. The tendency abroad is to increase still further the emphasis already placed upon the idea of function.

Another marked contrast to the work in the United States is found in the emphasis that is put upon the propædæutic study of geometry. The courses abroad, almost without exception, provide for the study of intuitive or observational geometry. The amount of time given to this work varies, but the general prevalence of such work is indicative of the importance attached to it. In several of the countries provision is made for the study of geometric drawing. The pupils learn to use the ruler, protractor, compasses, and triangle, and to make the simple geometric constructions. This work is closely correlated with the work in intuitive geometry and the classes are usually taught by the same teacher. In Germany the systematic and serious study of geometry begins with the sixth school year. In Germany and England easy loci problems are introduced.

Short methods and abbreviated processes receive more emphasis abroad than in this country. This is especially true in Austria, Belgium, Germany, and Hungary.

Alligation is taught in several of the countries; for example, in Germany and Russia. The subject is seldom taught in the United States.

The elementary ideas of algebra and of algebraic computation are introduced during the sixth school year in a few of the European countries; for example, in France, Russia, and Sweden.

The time devoted to the study of mathematics abroad is about the same, on the average, as in this country. In some of the countries the time devoted to mathematics is somewhat in excess of that in the United States, if we consider the course in drawing as a part of the course in mathematics.

VIII. THE WORK IN MATHEMATICS IN THE SEVENTH SCHOOL YEAR.

AUSTRIA.—The seventh school year is the second year of the *Bürgerschule* and the third year of the *Gymnasium*, *Realgymnasium*, and *Realschule*.

In the course in the *Bürgerschule* five hours a week are devoted to mathematics, three hours being given to arithmetic, one to observational geometry, and one to geometric drawing and constructions.

The pupils are taught how to find the greatest common divisor and the least common multiple of two or more numbers. The study of common fractions is completed, and the method of reducing common to decimal fractions is taught. The four operations with recurring decimals are taught. Fractions are applied to direct and inverse proportion, and the functional idea is emphasized. Some simple problems in interest are given. The fundamental ideas of planimetry are presented. The pupils learn how to bisect angles and certain regular figures. The idea of the symmetry of certain plane figures is presented, and a special study is made of triangles, quadrilaterals, polygons, and circles. Formulas for the surface and volume of a pyramid, prism, cone, cylinder, and sphere are learned. The study of the sphere is correlated with the work in geometry. The work in constructions includes the drawing of angles, triangles, quadrilaterals, polygons, and a few simple solids.

Gymnasium and Realgymnasium.—A comprehensive survey of the arithmetic of previous years is made. Rules are studied both in words and in letters, and simple transformations of formulas are made. The pupils are taught the use of parenthesis, and how to make substitutions in formulas and in equations. The ideas of negative number are presented.

The course in geometry includes the computation of simple surfaces, and the volume of the right prism, cylinder, pyramid, and cone. The pupils measure numerous objects both in and out of doors. The Pythagorean theorem is presented and is applied to plane and solid figures. Formulas for the surface and volume of the sphere are taught without proof. A good deal of attention is given to similar figures, and the idea is emphasized by means of reductions and enlargements. The pupils draw many figures to scale. The instruction in arithmetic and geometry is very closely related.

The pupils are taught the graphic representation of the four fundamental operations and of $(a+b)^2$, $(a-b)^2$, $(a+b)$, $(a-b)$, $(a+b)^3$, and $(a-b)^3$. Abbreviated and approximate computations are given a good deal of attention, and square and cube root are presented. The pupils are taught to estimate their results and to check these estimates by measuring and weighing. Functional thinking receives continual emphasis. A few of the simplest equations are studied. Geometric drawing may be studied, but it is not obligatory. In some of the Realgymnasias it is required.

Realschule.—Three hours a week are usually devoted to mathematics and two to geometric drawing. The drawing is usually taught by the mathematics teacher, and this is considered a decided advantage. Arithmetic is always taught in close connection with geometry.

Approximate computation of decimals is presented and applied to the finding of surfaces and volumes. The pupils make approximate measurements of various objects, distances, and heights, and use the data in problems. General arithmetic is taught, and a summary of the work of previous school years is given. Rules are studied both in words and in letters, and the pupils are taught to generalize rules whenever it is possible. Simple transformations and checks are given a good deal of attention. The terms "coefficient," "powers," and "exponent" are taught. The pupils learn the rules for the square and cube of a binomial, and they represent graphically $(a \pm b)^2$ and $(a \pm b)^3$. Graphic representations of roots are also made. The idea of the negative number is presented, and the four operations with algebraic numbers are taught. The course in geometry is quite similar to the course in the Gymnasium. The pupils learn the fundamental laws regarding areas and volumes. The functional idea is especially emphasized during this school year. Figures are usually drawn to scale, and results are frequently checked by drawing. When solids are involved, results are usually checked by weighing. The course in geometric drawing relates principally to the mensuration and transformation of areas. Some attention is given to decorative forms using circles or arcs.

BELGIUM.—The seventh school year is the first year of the middle school and of the Athénée Royal.

Course for the middle school.—The four fundamental operations with integers, common and decimal fractions are explained and extensively drilled upon. The pupils are taught the tests of divisibility for 2, 3, 4, 5, 8, 9, 11, 25, and 125. The casting out of nines is used as a check for multiplication and division. The greatest common divisor of two numbers is found by successive divisions. The changes effected by adding, subtracting, multiplying, or dividing both terms of a common fraction by the same number are studied. The subject of legal weights and measures is given a good deal of attention. Numerous problems involving the rule of three, simple interest, profit and loss, and commission are solved by means of unitary analysis.

Geometry.—The fundamental concepts of geometry are presented and the pupils are led to discover the conditions under which triangles are congruent. The theorem

for the sum of the angles of a triangle is also developed. The principal properties of triangles and quadrilaterals are studied.

Athénée Royal.—Practically the same course is offered in both the classical and the modern-language schools. The fundamental operations with integers, common and decimal fractions are explained and drilled upon. Tests of divisibility for 2, 3, 4, 5, 6, 9, and 11 are taught without proof. The method of reducing a common to a decimal fraction and the various principles of common fractions are taught without proof. Only small denominators are used. The study of the metric system is continued.

DENMARK.—The seventh school year is the last year of the Folkeskole and the second year of the intermediate or Mellem-skole.

In the Folkeskole four hours a week are devoted to mathematics. The study of proportion is continued, and percentage is applied to profit and loss. A comparative study of foreign coins is made.

Geometry.—The course in geometry includes the study of triangles, quadrilaterals, and circles. The pupils learn to compute the volume of right prisms and cylinders with given altitudes and bases. Drawings and models of plane and solid figures are made. Instead of making these drawings, girls are taught the method of keeping simple accounts.

Intermediate school.—Five hours a week are devoted to mathematics. Provision is made for almost daily drill in oral arithmetic. Simple and compound proportion, percentage, simple interest, partnership, simple bookkeeping, and easy mensuration are studied. Geometry is usually taken up before algebra. One or two hours a week are devoted to the study of intuitional or observational geometry. The fundamental properties of straight lines and planes, the measurement of angles, the congruency and similarity of triangles, and the principal properties of quadrilaterals and circles are taught.

ENGLAND.—The four fundamental operations for common and decimal fractions are reviewed, and in a few schools some facts relating to recurring decimals are presented. Numerous problems are worked by means of unitary analysis. The pupils receive a good deal of practice in the drawing up of invoices and the making out of bills. The subject of simple interest is taught, most of the problems being worked by means of formulas. The applications of percentage include profit and loss, discount, and taxes. Some easy problems are given in generalized arithmetic. Many rules are expressed with letters. The algebraic equation is introduced, and easy equations are solved. Simple substitution is also taught, and the meaning and use of negative numbers are briefly presented. Pupils are taught to use rulers marked in centimeters and millimeters. Volumes are found by the use of cubic blocks, by graduated vessels, and by emptying or displacement. The rules for the mensuration of various kinds of triangles, of the rhombus and rhomboid are derived. Simple volumes are studied. Squared paper is extensively used for finding the area of irregular figures. The relation between the length of the circumference and the diameter is determined. Pupils graph simple statistics, such as the school attendance, temperature, and prices.

The work in geometry includes the finding of the locus of points equidistant from a given point, the locus of points at a given distance from a given line, and the locus of points equidistant from three given points. The pupils prove in several ways that the sum of the angles of a triangle is 180 degrees. The relation of interior and exterior angles of triangles is discovered, and the method of dividing a line into equal parts or into parts having a given ratio is taught. The equality of triangles is shown by means of superposition. Some attention is given to the study of circles and to inscribed and circumscribed squares.

FINLAND.—The seventh school year is the last year of the primary school. From one to two hours are devoted to arithmetic. The work of previous years is reviewed, and proportion and discount are studied. The study of algebra is begun in the lycée.

FRANCE.—In some schools the higher primary lasts but six years. In others there is an additional year which corresponds to our seventh school year. The seventh school year is also the third year of the first cycle of the lycée.

Higher primary.—In view of the examinations, there is a comprehensive review of the mathematics of previous years.

Geometry.—The pupils are taught how to compute the areas of rectangles, parallelograms, triangles, trapezoids, polygons, circles, sectors, and segments of circles. Comparisons of the areas of similar polygons are made, and the formulas for the volumes of prisms, pyramids, and the frustum of pyramids are developed. The volumes of similar polyhedra are compared. The formula for the volume of the cylinder, cone, and frustum of the cone are developed. The rules for finding the surface and volume of a sphere and the surface of a zone are taught. The fundamental ideas of descriptive geometry and the elementary notions of rotation are presented.

Three hours a week are devoted to the subject of geometric drawing. The course is a review and a slight extension of the course of the previous year.

Classical lycée.—Two hours a week are devoted to the subject of arithmetic. The course includes factoring, tests for divisibility, prime numbers, proportion, and the square root.

Geometry.—The ruler, square, compasses, and protractor are used. Straight lines, angles, triangles, quadrilaterals, circles, cords, arcs, and tangents are studied. The congruency of triangles, and the theorems for the sum of the angles of a triangle and of a polygon are developed intuitively. Elementary constructions involving straight lines and circles are made and numerous angles are measured. No geometric drawing is taught.

Modern language lycée.—Four hours a week are devoted to mathematics and one to geometric drawing.

The course in arithmetic includes the study of fractions, the extraction of the square root, progressions, and the commercial applications of percentage.

Geometry.—The pupils are taught how to divide a line into parts having a given ratio. Similar triangles are studied, and the definitions of sine, cosine, and tangent are taught. The pantograph is extensively used in connection with the study of similar polygons. Fourth proportionals and mean proportionals are constructed. Regular polygons are studied, and the formulas for the area of a rectangle, parallelogram, triangle, trapezoid, and polygon are developed. The areas of similar polygons are compared, and the areas of circles are computed. Some simple curves, such as the cissoid and the conchoid, are constructed. The course in geometric drawing is practically the same as in the sixth school year, with the addition of pen tracing.

GERMANY.—The seventh school year is the fourth year of the Bürgerschule, Gymnasium and Realgymnasium, and Oberrealschule.

The course in the Volksschule includes simple interest, profit and loss, commercial discount, averages, and alligation. In geometry, right-angle triangles, quadrilaterals, circles, cubes, prisms, pyramids, and cones are studied. A good deal of attention is devoted to measurements and to drawing. The drawing board is extensively used.

Gymnasium and Realgymnasium.—One-third of the time is given to arithmetic and almost two-thirds of the time to geometry. Only a small part of the time is given to algebra.

The course in arithmetic includes interest, bankruptcy, and alligation. Addition, subtraction, multiplication, and division of algebraic expressions and the fundamental properties of equations of the first degree are taught. Instruction in geometry is of a propædæutic nature and includes the construction of plane figures, and the study of the congruency of triangles, the properties of the circle, chords, and angles. Some attention is devoted to geometric drawing.

Realschule and Oberrealschule.—Two hours are usually devoted to arithmetic and algebra and two to geometry. The course in arithmetic includes practical business

procedures and abridged computations. In algebra the equation of the first degree is studied. Positive and negative numbers are introduced, and the idea of function is emphasized.

The course in geometry includes the study of triangles, quadrilaterals, and polygons, special attention being given to the study of similarity. The properties of circles are extensively considered, and the pupils are led to discover the rules for areas of plane figures.

HOLLAND.—The seventh school year is the first year of the middle school and of the Gymnasium. The middle school of Amsterdam has a course of five years. Six lessons of 50 minutes each are given weekly in mathematics. The fundamental operations with integers, common and decimal fractions are reviewed. Tests for divisibility, greatest common divisor, and least common multiple are studied, and some attention is given to the subject of circulating decimals. The instruction in algebra is closely related to that in arithmetic. Simple equations in one unknown are studied with short cases of multiplication, and easy types of factoring are presented. Geometry is studied intuitively. The course includes the study of elementary properties of angles formed by parallel and transverse lines; the properties of triangles, quadrilaterals, and polygons.

Gymnasium.—Four hours a week are devoted to the subject of mathematics. Usually one hour is given to arithmetic, two to algebra, and one to geometry. All pupils have the same course in mathematics during the first four years of the Gymnasium. The fundamental operations with integers, common and decimal fractions are reviewed. The four operations with algebraic equations are taught. The course in geometry is of a propædæutic nature.

HUNGARY.—The seventh school year is the third year of the Bürgerschule, Gymnasium, and Realschule. In the Bürgerschule six hours a week are usually devoted to mathematics. The course includes the study of simple cases of proportion, easy computations in percentage, simple exercises in physics, and alligation. Some attention is devoted to geometric and free-hand drawing.

Gymnasium and Realschule.—Three hours a week are devoted to the study of mathematics and two hours to geometric drawing. The course in arithmetic includes the applications of percentage, simple and compound proportion, profit and loss, the making and receipting of bills, and the solution of numerous problems based on commercial and national transactions. A good deal of attention is devoted to the subject of savings banks.

The course in geometric drawing includes the construction of plane figures, the reduction and enlarging of figures, and the making of designs.

ITALY.—The seventh school year is the third year of the Ginnasio and of the modern school.

One hour a week is usually devoted to the study of practical arithmetic. Geometric drawing and intuitive geometry are taught. The course in algebra includes the formal introduction of literal computation and the study of the four fundamental operations. The course in geometry includes the study of the principal definitions and postulates of formal geometry; the relation of position of perpendiculars, parallels, straight lines, and planes; the construction of trihedral angles, parallelograms, polygons, and the regular polyhedra.

JAPAN.—The seventh school year is the first year of the higher primary and of the middle school.

The subject matter of the instruction in the higher elementary school consists of a more intensive study of the work of the ordinary elementary school, with the addition of ratio and proportion.

In the first year of the higher elementary school fractions, percentage, and ratio and proportion are presented.

Middle school.—Four hours a week are devoted to the subject of mathematics. The course includes the study of numeration, notation, integers, common and decimal fractions, compound numbers, tests for divisibility, prime numbers, factors, greatest common divisor, least common multiple, and ratio and proportion.

BOUMANIA.—The seventh school year is the third year of the Gymnasium. The pupils are taught the tests for divisibility, the greatest common divisor, and least common multiple. Common and decimal fractions are comprehensively reviewed; and the subjects of square root, ratio and proportion, interest, and double entry book-keeping are studied.

The course in geometry includes the study of the similarity of triangles and polygons, regular polygons, and formulas for the areas of the common plane figures. Geometry is studied intuitively.

RUSSIA.—The seventh school year is the fourth year of the Realschule and of the Gymnasium. The course in both types of schools is practically the same. Four hours are devoted to the study of mathematics, two being given to algebra and two to geometry. The pupils study the operations with polynomials, simple fractions, negative numbers, exponents, simple equations with one or more unknown, involution and evolution, and the theory of proportion.

The course in geometry includes the study of the straight line, angles, parallels, triangles, quadrilaterals, polygons, circles, and the fundamental constructions. A large number of numerical exercises are solved.

SWEDEN.—The seventh school year is the fourth year of the Realschule. Five hours a week are devoted to the study of mathematics. Two hours are given to arithmetic, one to algebra, and two to geometry. The instruction is largely of a practical nature. Applications of percentage and simple bookkeeping are taught. The pupils study only enough algebra to enable them to solve simple equations and to factor the simplest types.

The course in geometry includes the simple constructions of triangles and quadrilaterals and the application of geometry to physics. All instruction in geometry is closely correlated with the instruction in drawing.

SWITZERLAND.—The seventh school year is the third year of the middle school and the first year of the Gymnasium.

In the Gymnasium four hours a week are usually devoted to arithmetic and algebra and one to geometry. The work of previous years is reviewed and extended. The study of the operations with common and decimal fractions is completed, and the application of percentage to profit and loss and interest are studied. The course also includes the study of alligation, square root, abridged computations, and foreign money.

The course in geometry includes the use of the ruler and compasses in making simple constructions. The congruency of triangles is established intuitively, and a great deal of attention is devoted to practical measurements and drawings.

UNITED STATES—(New York State course).—It is assumed that pupils who have completed the work of the six previous school years should be able (1) to read reasonably large figures at sight and to write numbers rapidly from dictation; (2) to perform all fundamental processes in arithmetic rapidly and accurately; (3) to reason quickly and explain simple problems; (4) to compute with common and decimal fractions without hesitation; (5) to comprehend the fundamental principles of percentage and their application.

During the seventh school year a good deal of attention is given to oral drill in getting approximate results. The daily activities of the pupils are drawn upon freely to make the arithmetic interesting, informational, and practical.

Interest, including the subjects of commercial paper, bank discount, and compound interest, is studied. Tables are used in the computation of compound interest. The pupils are taught how to deposit money and draw checks. Many problems are

discussed without actual computations being made. Ratio and simple proportion are studied. The equation and the unknown quantity are used in proportion. The pupils are required to memorize the squares of numbers to 25. Square root is taught and is applied to numerous problems. The various tables of denominate numbers are reviewed, and numerous problems are based upon them. The work in mensuration includes the study of the surfaces of the parallelogram, rectangle, triangle, circle, and trapezoid; and the volume of the cube, sphere, cylinder, pyramid, and cone. No formal geometric demonstrations are attempted.

In some schools the topics of commercial discount, commission, and taxes are also studied during the seventh school year. Within recent years a great deal of attention is being devoted to the study of banks and banking, the saving and investment of money, and loans. In many schools it is thought profitable to organize school banks, to elect officers, and to carry on a regular banking business, usually with imitation money.

SUMMARY OF THE SEVENTH YEAR'S WORK.

In all of the European countries the course in mathematics is decidedly more advanced than in the United States.

In practically all of the countries abroad the subject of intuitional or observational geometry is emphasized during the seventh school year. This is the case in a few schools of the United States, but it is the exception rather than the rule. In some schools abroad the most elementary ideas of trigonometry are introduced in connection with the study of similar figures. The pupils abroad receive much training in constructive work, drawing to scale, reducing and enlarging figures. In some of the schools the pantograph and the planimeter are used. Squared paper is extensively used in England and to some extent in a few other countries. In Austria, France, Germany, Hungary, Italy, and Sweden especial attention is devoted to instruction in the elements of geometric drawing.

Geometry and arithmetic are very closely correlated in the instruction. In England more emphasis is put upon the geometric locus than in any other country during this school year.

In the United States more emphasis is probably put upon a few of the applications of percentage, but several topics in arithmetic not given much attention here are introduced abroad. Alligation is taught in few American schools, but the pupils in some of the schools of Germany, Hungary, and Switzerland study the subject. Recurring decimals, cube root, and the check for multiplication and division by casting out the nines, and the functional concept are more extensively taught abroad than in the United States. The function concept receives marked and growing emphasis in Austria, Germany, France, Hungary, and Switzerland.

It is the exception in the United States for any algebra beyond the simple equation and the evaluation of easy formulas to be introduced into the seventh school year. In practically all of the European countries, on the other hand, the pupils learn to solve simple linear equations containing one unknown, to evaluate the formulas of mensuration and percentage, and to perform the four fundamental operations with simple algebraic expressions. In a few countries some easy factoring and graph work are introduced.

IX. THE WORK IN MATHEMATICS IN THE EIGHTH SCHOOL YEAR.

AUSTRIA.—The eighth school year is the last year of the *Bürgerschule* and the fourth year of the *Gymnasium*, *Realgymnasium*, and *Realschule*.

Bürgerschule.—The course in arithmetic includes powers and roots, ratio and proportion, simple and compound interest, partnership, alligation, and simple book-keeping.

The four operations with algebraic expressions and simple equations of the first degree with one unknown are taught.

The course in geometry includes the intuitive study of the more important theorems of plane and solid geometry. The fundamental ideas of the ellipse and parabola are also presented. No distinction between plane and solid geometry is made, because much of the study is based on models. Geometry and arithmetic are closely correlated, and the function idea is emphasized.

The course in geometric drawing includes the representation of bodies in outline, transverse and longitudinal lines and triangles. Some attention is given to free-hand drawing and to designing. The course for girls is much the same as for boys, but the geometric drawing includes the construction of various designs for use in handwork.

Realschule.—The course in the Realschule begins with a thorough review of the fundamental operations in arithmetic. The principles underlying these operations are explained, and numerous practical problems are presented. Interest, alligation, proportion, and graphs are studied. Functional thinking is emphasized in the teaching of algebra by showing how the expression varies in value with different values of the unknown. Transformation of algebraic expressions and the solution of simple linear equations are taught. The pupils learn how to factor simple expressions according to type by both factoring and the Euclidean methods. Pure quadratic equations are studied as far as is necessary for the purposes of plane geometry.

In the course in geometry the theorems dealing with congruency and similarity are especially emphasized, and a good deal of attention is devoted to construction problems and to problems involving numerical computations. The time allotted to geometry in this class is generally considered inadequate.

Gymnasium.—The study of intuitional geometry ends with the preceding school year, and a more systematic study of geometry begins during this year. The idea of function is not considered as a separate topic, but it permeates the whole course. Linear functions are considered in the fourth and fifth years of the Gymnasium, and graphs are used to supplement the idea. The course in geometry includes the study of straight lines, angles, parallels, triangles, and quadrilaterals. The congruency theorems and symmetry of plane figures are studied, and the study of regular polygons and circles is an important part of the year's work. Inscribed and circumscribed figures, tangents, chords, central, and inscribed angles are studied. Algebra and geometry are closely correlated, especially in the mensuration of plane figures. The geometry is a mixture of the Euclidean and post-Euclidean geometry. Pencils of rays and other modern concepts are studied.

Realgymnasium and Realschule.—The study of descriptive geometry is introduced through the theory of projections. The pupils learn to represent by drawings the various conic sections and to construct tangents to and from a point outside of a cone. Projectional drawings are made of simple bodies in various positions. Some simple shadow constructions are made. A study is made of the intersection of projecting planes. In the fourth-year class of the Realgymnasium there are no separate hours for geometric drawing.

BELGIUM.—The eighth school year is the second year of the middle school and of the Athénée Royal.

In the middle school the boys devote four hours and the girls three hours a week to mathematics. The course for girls does not include algebra, and the geometry for girls is the same as for boys in the previous school year, with the addition of some elementary constructions.

Course in arithmetic.—The work of the previous year is thoroughly reviewed and the subjects of factoring and the highest common factor and the lowest common multiple by means of factoring are presented. Drill on the reduction of common to decimal fractions is continued. Discount, proportion, averages, mixtures, alligation, and aliquot parts are studied. Numerous oral exercises are given daily.

Algebra.—The formulas of interest and of mixtures are studied, and the pupils learn to evaluate formulas for any letter and to translate formulas into words. Simple linear equations and ratio and proportion are studied.

Geometry.—The chief aim of the work in geometry is to familiarize the pupil with the principal properties of triangles, quadrilaterals, and circles. Numerous problems involving the computation of the various parts of a triangle are given.

Athénée Royal.—In both the classic and modern schools three hours a week are devoted to the study of mathematics, and the course is practically the same in both types of schools. The course includes the rationalization of the rules for the four processes with integers, common and decimal fractions. The tests of divisibility by 2, 3, 4, 5, and 9 are presented. Checks are extensively used. Simple interest, commercial discount, mixtures, and alligation are studied. Problems in proportion are solved by the use of unitary analysis. An intensive study of the metric system is made.

DENMARK.—The eighth school year is the third year of the intermediate school. Six periods a week are devoted to the subject of mathematics. Provision is made for daily drill in oral arithmetic. The subjects of interest, partnership, profit and loss, simple bookkeeping, and proportion are taught. The tests for divisibility by 2, 3, 4, 5, 9, and 11 are presented. Simple areas and volumes are studied.

The subject of the geometry is introduced before algebra. The study is of an intuitive nature, and two hours a week are devoted to it. Accurate drawing is emphasized, and special attention is devoted to the construction and mensuration of circles. The Pythagorean theorem is intuitively established. Simple areas and volumes are computed, and numerous drawings and models are made.

ENGLAND.—The subjects of rates and taxes, insurance, bankruptcy, and dividends are studied. Interest formulas are derived and used. Averages and proportion are given some attention. The subject of mensuration is treated largely from a practical point of view and includes numerous problems of carpeting, papering, and painting. Generalized arithmetic is introduced. Graphs are used to illuminate the subjects of proportion and interest, and squared paper is extensively used in the computation of areas. The investment of savings and the various methods of transmitting money are studied, and pupils become familiar with business practice. Simple lessons on the formation of companies are given, and the terms capital, stock, shares, shareholder, dividends, and investments are given a practical setting. Problems in measuring include areas and easy volumes. The course in geometry includes the study of the properties of triangles, the construction of triangles and ellipses, and the construction of simple geometric figures and designs. Ratio and proportion are studied. The Pythagorean theorem is discovered intuitively.

FINLAND.—The eighth school year is the fourth year of the lycée. The study of algebra is continued, and geometry is introduced.

FRANCE.—The eighth school year in France is the fourth year of the lycée. It is the last year of the first cycle.

In the classical lycée three hours a week are devoted to the study of mathematics. The work in arithmetic involves a study of the metric system and of proportion. In algebra, the pupils study the four operations with monomials and binomials. Negative numbers are introduced. Numerical equations of the first degree in one and two unknowns are solved, and inequalities of the first degree in one unknown are introduced.

Geometry.—The work of the previous year is thoroughly reviewed. The study of proportion is introduced. The theorems involving the similarity of triangles and of polygons and of homogeneity are studied and the terms sine, cosine, tangent and cotangent are introduced. In the study of similarity, the pantograph is extensively used. The relations between the sides of a right triangle are computed. The properties of the circle, and of tangents, chords, and secants are studied. The formulas for

of simple equations with one or two unknowns, applied problems, and negative numbers.

The course in geometry includes the study of the parallel and perpendicular planes, the principal properties of the prism, cylinder, cone, and sphere, and the areas and volumes of these solids. The most difficult problems are omitted. An attempt is made to give the pupil some idea of elementary surveying. The final examinations which occur at the end of this year involve problems the solution of which demands some knowledge of arithmetic, algebra, and geometry.

RUSSIA.—The eighth school year is the fifth year of the *Realschule* and of the *Gymnasium*.

In the *Gymnasium* four periods a week are devoted to mathematics. Two hours are usually given to algebra and two to geometry.

The course in algebra includes the solution of quadratics with one unknown, a discussion of the properties of the roots of quadratic equations, the factoring of the quadratic trinomial, the solution of simultaneous equations, and radical equations.

The course in geometry includes the measurement of straight lines and angles, the proportionality of segments, the similarity of triangles and polygons, the numerical relations between the sides of a triangle, elementary ideas of limit, the principal properties of the circle, areas of rectilinear figures and of circles, simple problems in construction, dihedral, and polyhedral angles.

In the *Realschule* three periods a week are devoted to algebra and three to geometry. The course in algebra is said to include the study of square root, irrational numbers, simple quadratics, irrational roots, the relation between roots and coefficients in quadratics, construction of squares from given roots, simultaneous quadratics, arithmetical and geometrical progressions, infinite series, and circulating decimals.

The course in geometry includes the measurement of angles, the study of proportional intercepts, the similarity of triangles and polygons. Inscribed and circumscribed triangles and quadrilaterals are studied and elementary ideas of limits are presented. The pupils learn how to compute the area of a circle. Simple constructions are made, and the principle of homogeneity is presented.

SPAIN.—The report does not give details for the work of this year, but the statement is made that algebra and trigonometry are taught, six periods a week being devoted to the subject of mathematics. The instruction in geometry is of an intuitive character.

SWEDEN.—The eighth school year is the fifth year of the *Realschule*. Equations of the first degree in one and two unknowns are studied. Two hours a week are devoted to arithmetic and two hours to geometry. Simple bookkeeping is usually included in the course in arithmetic. Square-root tables are extensively used. The opinion prevails that algebra should be introduced through the simple equation. No textbook is used in the introductory work in geometry. The regular plane figures and the circle are studied. The principal properties of the ellipse are considered and some attention is given to projections.

SWITZERLAND.—The eighth school year is usually the last year of the middle school. It is the second year of the *Gymnasium*.

The Gymnasium.—Half an hour a week is usually devoted to the study of arithmetic, two hours to algebra, two to geometry, and one to geometric drawing. In several of the Cantons no special instruction is given in the subject of geometric drawing. The courses in the *Gymnasias* vary in the different Cantons, but in general, they are somewhat as follows:

In arithmetic, simple and compound proportion, abridged multiplication and division, square root, and the computation of simple areas, partnership, alligation, and business transactions are studied.

The course in algebra includes the four operations and the solution of simple linear equations.

The course in geometry includes the fundamental ideas of the subject up to the equality of surfaces. The applications of the theorems are emphasized, and a good deal of attention is placed upon drawing and the simple constructions.

UNITED STATES.—The business applications of percentage and the mensuration of common surfaces and of solids include all that is usually offered in mathematics during the eighth school year in the United States. In some schools, a comprehensive review of the arithmetic of previous years is given. In the most progressive schools of the country no arithmetic is given during the eighth school year, or at least during the last half of the eighth school year, and the time is devoted to the study of algebra combined with arithmetic.

The New York State course of study outlines the following in arithmetic for the eighth school year:

Daily drill in rapid mental and written computations. This includes certain short methods in multiplication; the computation of simple interest by short methods; and drill in the use of proper business forms, such as invoices, bills, and accounts sales. The pupils are taught how to keep the simple accounts of daily life, of the home, and the farm. Stocks and bonds are considered. The various types of insurance are studied, and the subject of taxes is closely correlated with the subject of civics and is taught from the standpoint of local conditions. The simple formulas common in various mechanical journals and in trade papers are used to introduce the study of algebra. The study of these formulas is followed by the solution of simple linear equations.

Throughout the eighth school year, especially, an attempt is made to correlate the work in mathematics with the instruction in manual and household arts and agriculture. The problems are largely of a practical nature, and much data is based on local conditions. In some of the schools, a great deal of attention is devoted to the subject of proportion. This is especially true in those schools where the subject of mensuration is emphasized, and the simple equation is not introduced early.

SUMMARY OF THE EIGHTH YEAR'S WORK.

In the United States the eighth school year is the last year of the elementary school. In most of the schools but little work in mathematics is attempted beyond the study of mensuration, proportion, and some of the applications of percentage. In an increasing number of schools some work in algebra is being introduced during the eighth school year. The nature and extent of this work varies, but in general it may be said to consist chiefly of the simple equation and the evaluation of formulas. It is but rarely that a school is found in which any attention is given to the subject of geometry except such as is necessary in the study of mensuration.

In all European countries the course in mathematics is more extensive than in the United States. In no European country is less geometry or algebra offered during the eighth school year than in the United States, and in practically all the countries the work in both of these subjects is much more extensive than in this country. In Austria, Germany, and Switzerland the most emphasis in algebra is put upon the four operations, the solution of simple equations, and proportion. In a few of the countries the subject of factoring is also taught. This is especially true in certain schools of Austria, Roumania, and Holland. The course in algebra reported for Russia is more advanced than in any of the other countries, but it is probably safe to assume that only the most elementary ideas of some of the topics mentioned are presented to the pupils.

In practically all of the countries, except the United States, a good deal of emphasis is put upon the study of intuitive geometry during the eighth school year. Especial attention is devoted to the study of congruent and similar figures and to simple constructions. In a few of the countries the pantograph is used in connection with the

study of similar figures, and the terms sine, cosine, and tangent are introduced. This is notably true in France. In a few of the modern lycées of France logarithms are introduced. The subject of geometric drawing is given a good deal of attention in several of the countries, especially in Austria, Hungary, and in some of the Cantons of Switzerland. In a few of the schools of Austria some instruction is given in the subject of descriptive geometry. In practically all of the schools abroad the subjects of geometry and arithmetic are more closely related than in this country. Continued emphasis is put upon the function concept idea, especially in Austria, Germany, and Switzerland.

In most of the foreign countries less time is devoted to the study of arithmetic during the eighth school year than in the United States. The study of alligation is continued in some of the schools of Austria, Belgium, Switzerland, and Japan; and a good deal of emphasis is put upon the study of tests for divisibility.

It is customary in all of the European countries to teach algebra and geometry simultaneously. During the eighth school year the time is about evenly divided between these two subjects, from two to three hours a week being devoted to each. An attempt is not made to fuse the subjects, but the interrelations between them are kept constantly in mind, and the pupil is not permitted to forget his geometry while studying his algebra, or vice versa. Each subject is considered an instruction unit, but it is used whenever possible as a tool in the study of the other. By the time a European boy has completed his eighth school year, he is at least a full year in advance of the American boy in his knowledge of mathematics.

X. THE WORK IN MATHEMATICS IN THE NINTH SCHOOL YEAR.

AUSTRIA.—The ninth school year is the fifth year of the Gymnasium and of the Realschule.

In the Realschule four hours a week are devoted to the study of mathematics. This time is about evenly distributed between arithmetic and geometry. These two subjects complement each other and form one instruction unit. Accurate observation and concise description are emphasized. Modeling is extensively used. There is a close correlation between plane and solid geometry, because of the extensive use of models. The theory of powers and roots is studied. Quadratics with one unknown are solved, and the pupils learn to graph the various types of quadratic equations. Only the simplest types of simultaneous quadratics are considered. Irrational, imaginary, and complex numbers are studied as far as is necessary for the solution of quadratic equations. The subject of logarithms is thoroughly studied. In geometry the work of the fourth class is continued and completed during the first semester. The course includes the study of proportional lines, similarity, and the computation of areas. During the second semester the subject of stereometry is introduced. The instruction begins with the study of solid angles. Tetrahedrons are studied, and surfaces and volumes are computed. A systematic study of descriptive geometry is made during this year. The course includes the study of straight lines and planes, vertical and horizontal projections. Oblique projections are used occasionally. Constructions are applied in the study of the regular pyramid and prism and of their shadows.

In the Realgymnasium two hours a week are devoted to descriptive geometry. No special hours are assigned for the subject of geometric drawing. With this exception, the course is practically the same in mathematics as in the Gymnasium.

In the Gymnasium neither descriptive geometry nor geometric drawing is obligatory. The arithmetic of previous years is extended and supplemented. Special

attention is given to the subject of powers and roots. Stereometry is introduced and emphasis is put upon functional thinking. Models are very extensively used.

BELGIUM.—The ninth school year is the last year of the middle school and the third year of the *Athénée Royal*.

Middle school.—A comprehensive review of the arithmetic of previous years is given. Powers and roots are studied, special attention being devoted to approximate roots. Compound interest is computed by the use of tables. Bonds, shares, savings banks, annuities, and insurance are studied. Tables are extensively used in all computations.

Algebra.—The course includes the study of the fundamental operations, the square and cube of a binomial, fractions, equations of the first degree involving two and more unknowns, negative numbers, and indeterminate equations.

Geometry.—The work of previous years is reviewed, and proportionality and similarity are introduced. The relations between the sides of a right triangle are computed. The regular polygon, circle, and the sector are studied. Some elementary exercises are given in surveying and in leveling. The surfaces and volumes of polyhedra and of cones, cylinders, and spheres are computed and applied in solving practical problems.

During this year, girls are not required to study algebra. The course in arithmetic is the same for boys and for girls. The course in geometry is somewhat less extensive for girls than it is for boys. A study is made of parallels and of elementary theorems. The areas of rectangles, parallelograms, triangles, trapezoids, and circles are computed, and the formulas for the surface and volume of prisms, cylinders, pyramids, cones, and spheres are used without proof. From three to five hours a week are devoted to the subject of mathematics.

Athénée Royal.—In the classical schools three hours are devoted to mathematics, and in other types of schools four hours are devoted to the subject.

The course in the classical school includes a study of the changes which a quotient and remainder undergo when the dividend and divisor, or one of them, are increased or decreased in a certain ratio. Tests for divisibility are studied. Checks by the casting out of nines and the elevens are applied in multiplication and division. Simple interest, bank discount, annuities, stocks and bonds, mixtures, alligation, negotiable paper, partnership, arithmetical and geometric progression, simple and compound proportion, and the computation of easy surfaces and volumes are studied during the year.

The course in the modern school is much the same as in the classical school, except that no attention is given to the study of arithmetical and geometrical progression, and more emphasis is put upon the study of congruency and simple constructions in geometry.

DENMARK.—The ninth school year is the last year of the intermediate school. At the close of the year a comprehensive examination is given, and the student must pass this satisfactorily before he is entitled to enter a higher grade. Seven hours a week are devoted to the subject of mathematics. Two hours are usually given to arithmetic, three to algebra, and two to geometry. After the work of the previous year has been thoroughly reviewed, the subjects of proportion, powers and roots, simple equations and quadratic equations with numerical coefficients are studied.

The course in geometry includes a review of the work of the previous year and a study of the similarity and congruency of triangles and polygons. Simple constructions are made. Provision is made for daily drill in mathematics.

ENGLAND.—The lack of uniformity in the English school system, especially in the upper years, makes any exact statement in regard to courses quite difficult.

In some of the schools a course similar to the following is offered for boys who do not wish to specialize in mathematics: Extraction of the square root by rule, the Pythagorean theorem, the study of circles, chords, arcs, tangents, and angles; the construction of circles from simple data, the construction of regular polygons, the

solution of quadratic equations with numerical coefficients, the simplifying of fractions, and the solution of applied problems.

The boys who pursue this course are not expected to continue the study of mathematics after leaving the school. The majority of them do not enter the university. The boys who expect to enter the universities and who are preparing at any of the great schools, such as Eton, Rugby, Harrow, and Winchester, spend from three to seven hours a week in the study of mathematics. By the time a boy is 15 or 16 years old he has usually completed the study of the five books of Euclid and of algebra to the progressions.

FINLAND.—Boys who expect to pursue their education beyond the elementary school usually enter the lycée or the secondary school. The lycée prepares directly for the university. The classical and modern lycée are somewhat similar to the German Gymnasium and Realschule. Both algebra and geometry are taught. Emphasis is put upon the solution of simple and quadratic equations. Solid geometry is briefly studied. The development of the intuition receives a good deal of attention. Further details of the course are not available.

FRANCE.—The ninth school year is the fifth year of the lycée. It is the first year of the second cycle. The second cycle lasts two years and has four divisions:

- A. Latin-Greek (classical).
- B. Latin-Modern languages.
- C. Latin-Science.
- D. Science-Modern languages.

Course in A and B.—Two hours a week are devoted to the subject of mathematics. The work in algebra includes a review of the work of the previous year. The four operations are performed with positive and negative numbers. Problems involving uniform movement are solved. Inequalities of the first degree are studied. Variations of the expression $ax+b$ are considered. Graphs are introduced, and the pupils represent the variations of x^2 and of $\frac{1}{x}$.

Solid geometry.—Dihedral angles and perpendicular and parallel planes are studied. Polyhedral angles are considered; and formulas for the surface and volume of prisms, pyramids, cylinders, cones, and spheres are developed. The course does not include geometric drawing.

Course in C and D.—Five hours a week are devoted to the subject of mathematics. The work is more intensive and more extensive than in courses A and B. The four operations with positive and negative numbers, the solution of equations of the first degree involving one and more unknowns, and inequalities of the first degree are studied. The variation of the expression $ax+b$ is considered and represented graphically. Equations of the second degree in one unknown are solved, but no equations involving imaginaries are considered. The relations between roots and coefficients are studied. The quadratic trinomial and inequalities of the second degree are introduced. A good deal of emphasis is put upon the subject of graphs. The variations of the expression $\frac{ax+b}{a'x+b}$ are considered. The notion of derivatives is applied to simple numerical problems and to functions previously studied. Arithmetical and geometric progressions are introduced. Four-place logarithms are used, and the subject of compound interest is studied.

The course in geometry includes a systematic study of lines, angles, parallels, perpendiculars, triangles, quadrilaterals, polygons, and circles. The theorems for the congruency and similarity of triangles are especially considered, and the terms sine, cosine, tangent, and cotangent for angles from zero to 180° are introduced. The construction of mean and fourth proportionals and the harmonic division of a line are considered. The areas of triangles, polygons, and circles are computed. Ele-

mentary notions of surveying are introduced. The pupils learn to use the surveyor's chain and the square.

In the classes in drawing, the ruler, compasses, square, and protractor are used. The simple geometric constructions are made.

The course in geometric drawing includes the making of designs particularly for tiles, parquets, and mosaics. Many of the drawings are colored.

GERMANY.—The ninth school year is the sixth year of the Bürgerschule, Gymnasium, Realgymnasium, Realschule, and Oberrealschule.

In the Gymnasium two hours a week are usually devoted to the study of algebra and three to geometry. The courses vary somewhat in the different States, but the work in algebra usually includes the solution of simple equations with one or more unknowns, graphs, the study of simple functions, and the solution of simple quadratic equations. In some of the States the course includes also the use of five-place logarithms and the slide rule, and the study of arithmetical and geometric progressions, compound interest, and annuities. The course in geometry usually includes the study of similar figures, regular polygons, and cyclometry.

In most of the Realgymnasien and Realschulen, three hours a week are devoted to algebra and three to geometry. The work is more intensive than in the Gymnasium, especially in the subject of logarithms and quadratic equations. Elementary trigonometry and solid geometry are sometimes introduced, and oblique and parallel projections are considered.

The course in the Oberrealschule is more advanced than in the other types of schools. In general it may be said to be an intensive study of the work that is offered in the Gymnasium, with the addition of the following: Trigonometric functions, and goniometry are frequently introduced with the study of similar figures. Solid geometry is studied. Euler's theorem is considered. The study of regular polyhedra is introduced, and numerous exercises involving numerical computations are solved.

HOLLAND.—The ninth school year is the third year of the middle school and of the Gymnasium.

Seven periods a week are devoted to the study of mathematics in the middle schools. The previous work in radicals is reviewed and extended. Fractional negative exponents are studied. Logarithms, arithmetical and geometrical progression, and compound interest are introduced. Equations of the first and higher degrees involving one or more unknowns are solved. The course in geometry includes the study of circles, regular polygons, and goniometry.

The Gymnasium.—All types of Gymnasien offer the same course in mathematics. One hour a week is usually devoted to the subject of algebra and two to geometry. The course in algebra includes the study of equations of the first and second degrees with one or more unknowns and the subject of radicals. Details of the course in geometry are not available.

HUNGARY.—The ninth school year is the fifth year of the Gymnasium, Bürgerschule, and Realschule.

Three hours a week are devoted to mathematics in the Gymnasium. Systematic instruction in geometry begins during this year, and a good deal of attention is devoted to the study of models. The pupils are required to make numerous indoor and out-of-door measurements and estimates. The axioms, postulates, and the principal theorems of plane geometry are studied. The course in algebra includes the solution of equations of the first degree with one or more unknowns, square root, cube root, radicals, and quadratic equations of the types used in geometry.

Realschule.—Five hours are devoted to the study of mathematics. No geometric drawing is given in either Gymnasium or Realschule. The course is practically the same as in the Gymnasium, but the work is more intensive. Some of the fundamental theorems of solid geometry are introduced.

Bürgerschule.—Four hours a week are devoted to the study of mathematics. The course includes the four fundamental operations with positive and negative numbers, fractions, simple linear equations in one unknown, the chief theorems of planimetry, the study of congruent and similar plane figures, the construction of plane figures, and the study of perimeters and areas.

ITALY.—The ninth school year is the last year of the Ginnasio and the third year of the modern school. Three hours a week are devoted to the study of practical arithmetic and two hours to geometry. The first book of Euclid is studied. Some attention is devoted to the study of the simple solids and to the proportionality of magnitudes. Equations of the first degree are solved. Four periods a week are usually devoted to mathematics.

JAPAN.—The ninth school year is the last year of the higher primary and the third year of the middle school.

The higher primary.—Four hours a week are devoted to the study of mathematics. The lessons of the previous years are reviewed and supplemented. There is a repetition of the mensuration previously learned, to which are added the mensuration of the pyramid, circular cone, frustum of a pyramid, frustum of a circular cone, expression of square root and cube root and a review of the four rules, proportion and percentage, together with arithmetical and geometric progression.

Rules for finding the volume of pyramids and circular cones are given dogmatically and verified by actual measurement. Simple bookkeeping is sometimes taught.

The middle school.—Four hours a week are devoted to the study of mathematics. The study of equations is continued, and linear simultaneous equations are solved. Formulas relating to the distributive law are considered, factoring, the greatest common factor, and lowest common multiple are studied. The reduction of fractional expressions and the four fundamental operations with fractions are included in the course. Quadratic equations with one unknown quantity, equations with one unknown quantity reducible to quadratics, and simultaneous equations containing quadratic equations are presented.

The course in geometry includes the study of straight lines, triangles, parallelograms, circles, chords, tangents, and segments. Two hours a week are devoted to this work.

ROUMANIA.—The ninth school year is the first year of the lycée. Six hours a week are devoted to the study of mathematics. The four operations with common and decimal fractions are explained. The use of tests for divisibility is continued. Prime numbers are studied. The idea of the limit is introduced. Square and cube root are studied. The aim is to cultivate mathematical reasoning. The work is more intensive than in previous years.

Algebra.—Positive and negative numbers, algebraic fractions and radicals are introduced. Equations of the first degree are solved, and some attention is devoted to the study of reciprocal equations. The quadratic trinomial is considered. Arithmetical and geometrical progression, logarithms, compound interest, and annuities are taken up.

The course in geometry includes the study of angles and triangles, quadrilaterals, circles, and proportion. Numerous exercises are solved.

RUSSIA.—The ninth school year is the sixth year of the Realschule and of the Gymnasium.

In the Gymnasium four hours a week are devoted to the subject of mathematics. The work in algebra includes the study of progressions, logarithms, and compound interest. The course in geometry includes the study of regular polyhedra, the formulas for the area and volume of the prism, cylinder, pyramid, cone, and sphere. A good deal of attention is devoted to estimates.

In the Realschule two periods are devoted to algebra, two to geometry, and two to trigonometry. Fractional, negative, and zero exponents are introduced. Irra-

tional expressions are considered. Logarithms, exponential equations, combinations, the binomial theorem, continued fractions and their application to square root and to logarithms, compound interest, and annuities are studied.

The course in geometry includes the study of the relative positions of straight lines and planes in space, the chief characteristics of plane and solid angles, the regular polyhedra, and the study of the formulas for the surfaces and volumes of the regular solids.

In trigonometry, the sine, cosine, tangent, and cotangent for both acute and obtuse angles are studied. The limiting values of these functions are considered and the logarithmic and trigonometric functions are used. The elementary formulas of plane trigonometry and the formulas for the solution of right and oblique triangles are developed. The areas of triangles are computed by the use of the trigonometric formula, and trigonometry is applied to the solution of geometric problems and exercises.

SWEDEN.—The ninth school year is the last year of the Realschule and the first year of the Gymnasium.

In the Realschule square root and its application to geometric problems, the computation of compound interest by means of tables, graphs, and simple bookkeeping are taught. Two hours a week are devoted to the study of arithmetic.

The work in geometry includes the drawing and making of models, simple projections, the use of the compasses, ruler, and protractor, and the making of simple constructions. One hour a week is devoted to geometry.

Gymnasium.—Five hours a week are devoted to mathematics in the classical gymnasium, and seven hours a week in the realgymnasium. The algebra of the Realschule is reviewed, and square root and quadratic equations are studied. Simple functions are emphasized. The geometry of the Realschule is reviewed, and numerous applications are made. Linear drawing is given considerable attention, and the principles of the theory of projection are studied. Special attention is directed to the study of the intersection of plane and solid figures.

SWITZERLAND.—The ninth school year is the third year of the Gymnasium and the first year of the Realschule. The course is the same in the Classical and the Realgymnasium. Two hours a week are devoted to algebra, two to geometry, and in some Cantons two hours a week are devoted to geometric drawing in the Realgymnasien.

The course in algebra includes the study of logarithms, arithmetical and geometrical progression, compound interest and annuities, the four operations with fractional exponents, and the study of functions.

The course in geometry includes the study of transversals, triangles, quadrilaterals, circles, construction problems, the theorems of congruency and similarity, and the study of surfaces and volumes.

Realschule.—One hour a week is devoted to the study of arithmetic, two to algebra, three to geometry, and two to geometric drawing. The course is practically the same as above except that a more intensive study is made. More attention is given to abridged multiplication and division than is the case in the Gymnasium.

UNITED STATES.—The course in mathematics varies somewhat for the ninth school year, but in general it may be stated as follows:

The four fundamental operations with rational integral expressions, factoring, highest common factor and lowest common multiple, fractions, reduction, the fundamental operations with fractions, linear equations with one unknown, applied problems, simple and simultaneous equations with one and more variables, graphic solutions, involution, the method of extracting square and in some cases cube root, fractional and negative exponents with proofs of fundamental laws, radicals, irrational expressions and equations, problems, the solution of quadratic equations of the type $ax^2+bx+c=0$ by factoring.

SUMMARY OF THE NINTH YEAR'S WORK.

The ninth school year is usually the first year of the secondary school in the United States. In the majority of secondary schools the subject of algebra is completed up to quadratic equations. In a few of the schools less work is attempted in algebra and more attention is devoted to the subject of intuitional geometry. In such schools, emphasis is put upon the use of the simple geometrical instruments, the making of easy constructions, measurements, and simple designs.

In all European schools both algebra and geometry are taught during the ninth school year. In most of the countries the time is divided evenly between these two subjects, from two to three hours a week being devoted to each. Here, as in the preceding year, the subjects supplement each other, and no attempt is made to fuse them. The relations between the two subjects are emphasized much more extensively abroad than in the United States. In most of the schools of Europe the distinction between plane and solid geometry is less marked than in the schools of the United States. This is, in part at least, due to the fact that models and drawings are very extensively used abroad. During the ninth school year the work in algebra in most of the European schools is but slightly more advanced than in the best schools of the United States. In some of the schools of Austria, France, Denmark, Holland, and Hungary the course is somewhat more advanced than in the United States. In these schools logarithms, proportion, and quadratics are studied. The course in the Realschulen of Russia is said to be very advanced.

In practically all of the European countries geometry is studied during the ninth school year. Especial emphasis is put upon the study of proportional lines, congruent and similar figures, areas, and volumes. In all of the schools models are extensively used. In Belgium, France, Germany, and Holland the study of similar figures is supplemented by elementary exercises in surveying, and in some of the French schools the terms sine, cosine, tangent, and cotangent are introduced and used.

Descriptive geometry is introduced in some of the Realschulen and Realgymnasias of Austria. In France, Sweden, and in the Realgymnasias of Switzerland some attention is devoted to the subject of geometric drawing. In most of the countries continued emphasis is put upon the idea of functions. This is especially true in Austria, France, Germany, Sweden, and Switzerland. The subject of logarithms is introduced in most of the countries, and in some of the schools of Germany the pupils become familiar with the slide rule.

In a few of the countries the study of arithmetic is continued during the ninth school year. Especial emphasis is put upon the use of tables for finding interest, and upon abridged processes.

Arithmetic, algebra, and geometry are more closely related in the schools abroad than in the United States. Each subject is considered as an instruction unit, but it is closely correlated with the others. When a European boy has completed his ninth school year he has a mastery of all the topics in algebra that the American boy has studied, and in addition to these he is familiar with practically all of the more important theorems of plane and solid geometry. In some of the schools of Finland, Germany, and Russia the elements of trigonometry are introduced.

XI. THE WORK IN MATHEMATICS IN THE TENTH SCHOOL YEAR.

AUSTRIA.—The tenth school year is the sixth year of the Gymnasium, Realschule, and Realgymnasium.

Realschule.—The course in algebra includes the study of logarithms and exponential equations of the simplest kind, arithmetical and geometrical progressions, annuities, and compound interest.

Goniometry and plane and spherical trigonometry have an important place in the curriculum, on account of their practical value. The course in trigonometry may be said to dominate the work of this school year in the Realschule. The functions are defined and developed for acute and obtuse angles and are graphically represented in the unit circle. All the fundamental formulas are developed and used in the solution of acute and oblique triangles. Logarithmic tables and the natural functions are used. The spherical triangle and the chief formulas for its surface are studied. These formulas are applied to the solution of certain problems in stereometry.

The instruction in geometric drawing in the Realschule and in the Realgymnasium includes an extensive study of vertical projections of plane figures, the shadow of the circle projected on a plane by parallel and by oblique rays, the derivation of the properties of the ellipse conceived as the projection of the circle, the representation of cylinders and cones of revolution, tangential planes, cones and cylinders, shadow constructions, and the study of the sphere. Three hours a week are devoted to the subject of geometric drawing.

Gymnasium.—Equations of the second and of higher degrees that can be reduced to quadratic equations are solved. Surds, imaginaries, and complex numbers, graphs, and the nature of roots of quadratics are considered.

Geometry.—A full year is devoted to the study of solid geometry, a great deal of emphasis being put upon drawing. The pupils draw vertical and horizontal projections of all the simple bodies.

Goniometry and trigonometry.—The course is not so extensive as in the Realschule, and the slide rule is not much used in the instruction. Five-place logarithmic tables are almost always used.

BELGIUM.—The tenth school year is the fourth year of the Athénée Royal. In the classical course three to four hours a week, and in the modern course four hours a week, are devoted to the study of mathematics.

Classical course.—The arithmetic of previous years is reviewed. The greatest common divisor by successive division is studied. Factoring and greatest common divisor and lowest common multiple by factoring receive a good deal of attention.

The course in algebra includes the transformation of equations, the study of proportion, linear equations with one unknown, applied problems, the evaluation of formulas, and alligation.

The work in geometry includes the study of the first book of Euclid. Numerous constructions are made.

Modern course.—The work in arithmetic is the same as in the classical course, with the addition of the study of tests for divisibility.

The course in algebra includes all that is given in the classical course, with the addition of negative expressions, the square and cube of binomials, the four fundamental operations, the remainder theorem, the four operations with fractions, the reduction of fractions, squares and the square roots of numbers, and of algebraic expressions, radicals, and simple quadratics.

The course in geometry includes a complete review of all the work of preceding years and a study of the circle, the mensuration of quadrilaterals, the study of proportional lines and similar figures, and the calculation of the elements of the triangle.

DENMARK.—The tenth school year is the first and only year of the Realklasse and the first year of the Gymnasium.

Realklasse.—This class is for those who wish an additional year, but are not going to the university.

The work in arithmetic includes the study of business forms, the use of interest, and logarithmic tables.

The course in algebra includes the general solution of quadratic equations. The rules for the sum and the product of the roots, the solution of easy equations reducible

to quadratics, symmetrical equations, simultaneous quadratics, powers and roots, and annuities are also studied. The subject of geometry is elective, and the course is practically the same as in the corresponding year of the Gymnasium.

Gymnasium.—In the classical Gymnasium the course includes the study of general quadratic equations, the rules for the sum and the product of the roots of quadratic equations, inequalities of the second degree, maxima and minima, limits, simultaneous quadratics, imaginaries, four-place logarithms, simple exponential equations, arithmetical and geometrical progression, infinite series, compound interest, and annuities.

The course in geometry includes the study of similar figures, regular polygons, the study of the circle, the trigonometric functions of acute and obtuse angles with simple applications, and the graphic representation of simple functions.

The course in the scientific Gymnasium includes all that is offered in the classical Gymnasium, with the addition of the study of approximate computations, harmonic progressions, complex numbers, permutations and combinations, indeterminates with two unknowns, and complex roots.

ENGLAND.—The tenth school year is the last year of the five-year preparatory course. The work in arithmetic includes the mensuration of plane and solid figures and the study of simple business arithmetic.

The course in geometry includes simple constructions, loci problems, and propositions concerning parallels, the congruency and similarity of triangles, areas, and proportional parts.

The course in algebra includes the theory of exponents, logarithms, and variations.

The course in trigonometry includes the numerical solution of triangles by means of the sine and cosine formulas, the use of tables, and simple problems from surveying.

The course in girls' schools for the corresponding year is more elementary. The course in arithmetic includes the study of general arithmetic, compound interest, stocks and bonds. The course in algebra includes quadratic equations, the theory of indices, surds, progression and proportion. In geometry, Books I to IV of Euclid are usually completed.

FINLAND.—The report makes no division of the work by years. Algebra is begun in the third year of the lycée, geometry in the fourth, and trigonometry in the fifth. The subject of solid geometry is somewhat abridged. The tenth school year is the sixth year of the lycée.

FRANCE.—The tenth school year is the sixth year of the lycée. It is the second and last year of the second cycle. In the classical lycée two hours a week, and in the scientific lycée five hours are devoted to the study of mathematics.

Classical lycée.—The course in algebra includes exercises involving equations of the first degree and of the second degree in one unknown, variations of trinomials of the second degree.

The course in geometry includes the mensuration of angles, the study of plane figures, the definition of sine, cosine, and tangent for angles from zero to 180 degrees, and the formulas for surfaces and volumes.

Scientific lycée.—The course in algebra includes the study of equations of the second degree, applications of geometry to trigonometry, equations of derivatives of simple functions, the study of variations and of graphic representations, the study of motion in connection with the theory of derivatives.

The course in geometry includes the study of polyhedra, cones, spheres, surfaces, and volumes. The ideas of translation and rotation are extensively used and the subject of symmetry is given a good deal of emphasis. Rather an extensive course in descriptive geometry is offered in many schools. Geometric drawing is also taught in most of the scientific schools. The trigonometric functions are studied, and the principal formulas for the solution of right and oblique triangles are derived.

GERMANY.—The tenth school year is the seventh year of the *Bürgerschule*, the *Gymnasium*, *Realgymnasium*, *Realschule*, and *Oberrealschule*.

Gymnasium.—Equations of the second degree, including simultaneous quadratics and equations in the quadratic form, are studied. Four and five place logarithmic tables are also used. Emphasis is put upon the application of algebra in the solution of geometric problems.

Geometry.—The course in geometry includes the study of congruent and similar figures, inscribed and circumscribed polygons, cyclometry, and harmonic functions. The plane trigonometry of the right and oblique triangle and goniometry are introduced. In some schools harmonic points and rays are studied.

Realgymnasium.—Six hours are devoted to mathematics, three to algebra, and three to geometry. Arithmetical and geometrical progression, compound interest and annuities, are studied. Equations of higher degree, difficult quadratics, reciprocal and binomial equations are introduced.

The course in geometry includes the study of straight lines, planes, triangles, polygons, and circles. The principal properties of the pyramid, cylinder, prism, cone, sphere, and logarithms are studied, and the study of trigonometry is continued. In a few *Realgymnasias* the elements of analytic geometry are begun. The straight line, poles and polars, the ellipse, parabola, and hyperbola are considered.

Realschule and Oberrealschule.—Two hours a week are devoted to the subject of algebra, and three to geometry and trigonometry.

The course in algebra includes the study of imaginary and complex numbers, De Moivre's theorem and its application, the graphic solution of equations, the binomial theorem, and reciprocal equations.

The course in geometry includes the study of similar figures; the functions for any angle are taught and are represented by line values; and the applications of spherical trigonometry to solid geometry and to mathematical geography are presented. In some schools map projection is studied. In most of the schools a brief course in descriptive geometry is offered. This includes a systematic review of the descriptive geometry of previous years, and in addition the study of the intersection of planes and solids by other planes and solids.

HOLLAND.—The tenth school year is the fourth year of the *Gymnasium* and of the middle school.

Middle school.—Four hours a week are devoted to the study of mathematics. The algebra of previous years is reviewed. Indeterminate equations of the first degree are introduced. Permutations and combinations and the binomial theorem are studied. Trigonometry is introduced. The work in solid geometry includes a study of the relative position of straight lines and planes, dihedral and polyhedral angles, the properties and volumes of prisms, pyramids, cylinders, cones, and spheres. A course in the elements of descriptive geometry is usually offered. Two hours a week are usually devoted to the study of mechanics and one to cosmography.

Gymnasium.—Three hours a week are devoted to the study of mathematics, one hour being given to algebra and two to geometry. Irrational and complex expressions, fractional and negative exponents are studied. All of plane geometry is completed.

HUNGARY.—The tenth school year is the sixth year of the *Gymnasium* and of the *Realschule*.

Gymnasium.—Involution, involving fractional and negative exponents, is taught. Brigg's logarithms are used, and arithmetical and geometrical progression are studied.

Most of the course in geometry is devoted to the study of the circle.

The functions of acute angles are taught and used in the solution of triangles. Formulas for the sine and cosine are developed and applied. Functions of positive and negative angles are considered. Some simple surveying is done.

Realschule.—The courses in algebra and in geometry are the same as in the Gymnasium, but the work is somewhat more intensive.

Three hours a week are devoted to the study of descriptive geometry. The course includes the study of orthogonal projections, the projections of circles in simple positions, the study of points, straight lines and planes, angles, and shadow problems.

Bürgerschule.—Three hours a week are devoted to the study of mathematics. Linear equations, square and cube root, quadratic equations, and involutions with fractional and negative exponents are taught. Some attention is given to irrational and imaginary numbers. Logarithms, the theory of combinations, and annuities are also presented.

The course in geometry includes the study of the Pythagorean theorem and its applications, and the study of the circle. In some classes one hour a week is devoted to simple bookkeeping.

ITALY.—The tenth school year is the first year of the liceo. Six hours are devoted to the subject of mathematics, considerable attention being devoted to arithmetic. The study of geometry includes a review of the first book of Euclid, which was studied in the preceding year. Books II and III are also completed. The study of algebra is completed up to radicals and fractional exponents. The study of arithmetic is completed with the theory of square root and incommensurable numbers.

JAPAN.—The tenth school year is the fourth year of the middle school. Two hours a week are devoted to algebra and two to geometry. The course in algebra includes the study of irrational expressions, ratio and proportion, the progressions, permutations and combinations, logarithms, the use of tables, and the binomial theorem with positive integral exponents.

The course in geometry includes the study of inscribed and circumscribed figures, areas, congruency, proportion, and the applications of proportion to similar figures.

BOUMANIA.—The tenth school year is the second year of the lycée.

Algebra.—The functions of independent variables, limits, continuity, simple derivatives, graphs, maxima and minima, the theory of permutations and combinations, and the binomial theorem are studied. In some schools, the extraction of the square root of polynomials by indeterminate coefficients is taught. In a few schools, determinants of the third order, and their use in the solution of homogeneous and nonhomogeneous equations are taken up. Graphs are extensively used in all courses in algebra.

Geometry.—The course in geometry includes the study of regular polygons, circles, transversals, areas, congruency, and similarity. Some attention is devoted to the study of harmonic functions. Many applications are presented. Dihedral and trihedral angles, parallel and perpendicular planes, and the formulas for surfaces and volumes are studied.

Trigonometry.—The trigonometric functions for acute and obtuse angles are taught and represented graphically. The principal formulas of plane trigonometry are developed and applied, and the tables of logarithms are used. The idea of periodic functions is emphasized.

RUSSIA.—The tenth school year is the seventh year of the Realschule and of the Gymnasium.

Gymnasium.—Three to four hours a week are devoted to the study of mathematics in the Gymnasium. The course in algebra includes simple and quadratic equations involving one or more unknown quantities, indeterminate equations of the first and second degrees, the progressions, logarithms, the binomial theorem, and continued fractions.

Trigonometry.—One and a half hours to two hours are devoted each week to the study of trigonometry. Plane trigonometry is completed during this year.

Realschule.—The course in algebra in the Realschule is practically the same as in the Gymnasium, but the work in the Gymnasium is somewhat less intensive. In the

Realschule more emphasis is put upon the subject of complex numbers, and upon integral functions and their roots. The course in trigonometry is the same as in the **Gymnasium**.

Plane analytics and the elements of infinitesimal calculus are also introduced during the tenth school year in the **Realschule**. The course in analytic geometry includes the derivation of the principal theorems by means of rectangular coordinates. The circle is studied and its equation is derived by the use of rectangular and by polar coordinates. The spiral of Archimedes is studied. The equation for the ellipse, the parabola, and the hyperbola are derived both in rectangular and polar coordinates. The ellipse, regarded as the projection of the circle, is also taken up.

Infinitesimal calculus.—The principles of the theory of limits and their application to the mensuration of the circle and of the surface and volume of the cylinder, cone, and sphere are studied. The limiting value of $\frac{\sin z}{z}$ as z tends to zero and that of $\left(1 + \frac{1}{n}\right)^n$, when n increases without limit, are discussed. The system of natural logarithms is presented. Continuity of functions is studied. The geometric representation of functions and derivatives receive attention. Formulas for the derivatives of the sum, difference, product, and quotient of functions are taught, and the derivatives of inverse functions are also presented. The subject of maxima and minima is taken up. Equations for tangents and normals at a given point of a curve are derived. Indefinite and definite integrals are taken up.

Those pupils who elect this course in mathematics are usually preparing for the school of technology.

SPAIN.—No pure mathematics is offered during the tenth school year. Both algebra and trigonometry are completed during the preceding year and physics is studied during the tenth year.

SWEDEN.—The tenth school year is the second year of the **Gymnasium**. In the classical **Gymnasium** four hours a week, and in the **Realgymnasium** six hours a week are devoted to the study of mathematics.

Classical Gymnasium.—Involution and evolution and the use of tables of logarithms are taught. The pupils graph simple functions. The geometry of previous years is reviewed and numerous applied problems are solved.

Realgymnasium.—Simple trigonometric computations for right and oblique triangles are made. The function concept is emphasized throughout the year. The work in trigonometry is a continuation of the theory of projections and the intersection of planes by planes and of solids by planes.

SWITZERLAND.—The tenth school year is the fourth year of the **Gymnasium** and the second year of the **Realschule**.

Gymnasium.—One and a half hours a week are devoted to the study of algebra. The course includes powers and roots, equations of the second degree involving one unknown and equations of higher degree reducible to equations with one unknown, imaginary and complex numbers.

One and a half hours are usually devoted to the study of geometry. The course includes the study of similarity of polygons, cyclometry, applications of algebra to geometry, harmonic division and transversals.

Plane trigonometry is introduced and the function concept is given a great deal of emphasis.

Realgymnasium.—Two hours a week are devoted to the study of algebra, and three and a half hours to geometry and trigonometry. The course includes all that is given in the **Gymnasium**, with the addition of dihedral and polyhedral angles, and a more intensive study of trigonometry and goniometry.

Realschule.—The course is practically the same as in the **Realgymnasium**. The work in algebra is somewhat more intensive and includes some equations of the third degree, logarithms, arithmetical and geometrical progressions.

UNITED STATES.—There are two general plans for organizing the course in mathematics for the tenth school year.

The first is the older plan and is still in more general use, but the second is growing in popularity.

First plan: Half of the year is devoted to the study of algebra. The course includes the theory of exponents, radicals, the theory of quadratics, simultaneous quadratics, the binomial theorem for positive integral exponents. This is followed by a half year of plane geometry. The first two books are completed.

Second plan: The entire year is devoted to the subject of plane geometry, and the five books are completed.

SUMMARY OF THE TENTH YEAR'S WORK.

The tenth school year is the second year of the secondary school in the United States. In most of the schools the entire year is devoted to the study of plane geometry. In some of the schools half of the year is devoted to the study of algebra and the other half to the study of plane geometry.

In the schools of Europe the mathematics of the tenth school year is distinctly in advance of that in the United States. The difference in the mathematical courses in the two countries is most marked in the subjects of geometry, trigonometry, and drawing.

In most of the European schools the course in algebra is practically the same as in the first half of the third year in the secondary schools in the United States, that is, the course begins with the study of quadratic equations and continues through the progressions and the binomial theorem. In many of the European countries the subjects of logarithms, compound interest, and annuities are given a good deal of attention.

The courses in geometry abroad usually include the study of congruent and similar figures, cyclometry, regular polyhedra, and the formulas for the surfaces and volumes of the common solids.

The subject of trigonometry is taught during the tenth school year in almost all of European countries. The extent of the course varies, but usually the entire subject of plane trigonometry is completed during this school year. In a few of the countries spherical trigonometry is also studied, and the knowledge thus gained is applied in the study of solid geometry and of mathematical geography.

Descriptive geometry is introduced in the French scientific lycée, in a few Real-schulen and Oberrealschulen of Germany, and in some of the schools of Holland and Hungary. The study of geometric drawing is given more emphasis in France than in other countries. The elements of analytic geometry are introduced in a few of the Realgymnasia and Oberrealschulen of Germany and in some of the Realschulen of Russia. In practically all of the European countries, by the time a boy has completed the tenth school year, if he has pursued the scientific course, he has studied all the mathematics that is offered during the entire 12 school years in most of the schools of the United States.

XII. THE WORK IN MATHEMATICS IN THE ELEVENTH SCHOOL YEAR.

AUSTRIA.—The eleventh school year is the last year of the Realschule and the seventh year of the Gymnasium and Realgymnasium.

Gymnasium.—Plane geometry is completed during the tenth school year. A good deal of emphasis is placed upon the idea of function. Spherical trigonometry is not taught in the Gymnasium. Surveying and mechanics receive a great deal of attention. Analytic geometry is introduced. The study is at first confined to rectangu-

lar coordinates. The principal formulas for distances and areas are developed and applied. Since the idea of function has been developed in the previous years, a good deal of time is saved here. The equation of the straight line is presented in four ways, $y=mx+b$, $ax+by+c=0$, $\frac{x}{a}+\frac{y}{b}=1$, $x\cos\alpha+y\sin\alpha-p=0$. The conic sections and the tangents for each of the conics are studied.

The course in algebra includes the study of arithmetical and geometric progression, compound interest, the theory of permutations and combinations, variations, the binomial theorem for positive integral exponents, and the fundamental ideas of the theory of probability.

Realschule and Realgymnasium.—Two hours a week are devoted to the subject of descriptive geometry. Orthogonal and oblique projections are studied, and a good deal of emphasis is put upon perspective drawings. Tangential planes and plane sections are studied. The principal aim of the course in descriptive geometry is to develop spatial concepts and skill in constructions as a basis for the work in more advanced technical institutions.

One hour a week is usually devoted to the subject of geometric drawing.

In the *Realschule*, more attention is devoted to the study of analytic geometry than in the *Gymnasium*. The subject is treated as a continuation and extension of the theory of functions, which has been presented in previous years. The straight line is exhaustively studied as a basis for other figures. Practically all computations are made by the use of rectangular coordinates. A good deal of attention is devoted to the study of conic sections. Special attention is given to problems in which conic sections appear as geometric loci. Easy differential and integral calculus are applied to problems in physics. Only those computations are introduced which simplify or make more intensive the knowledge of physics. There is a decided tendency to restrict the theoretic matter to the smallest possible compass.

BELGIUM.—The eleventh school year is the fifth year of the *Athénée Royal*. In the Greek-Latin and in the commercial *Athénée* three hours a week are devoted to the study of mathematics. In the Latin and in the scientific sections six hours a week are devoted to the subject.

Greek-Latin section.—The algebra and geometry of previous years are thoroughly reviewed. Equations of the first degree with two or more unknowns and simple applied problems are solved. The interpretation of negative, indeterminate, and infinite values is emphasized. Results are generalized whenever possible. The remainder theorem is introduced and algebraic fractions are studied.

The course in geometry includes the study of the properties of circles, chords, secants, and tangents, the congruency and similarity of triangles and polygons, proportional lines and problems in construction. A good deal of attention is devoted to drawing to scale and to out-of-door measurements.

The course in the scientific and in the Latin *Athénée* is practically the same. The work in arithmetic includes a thorough review of the work of previous years, tests for divisibility, greatest common divisor and lowest common multiple, prime numbers, the theorem of Fermat, common and decimal fractions, approximate computations, complex numbers, and cube root.

The course in algebra includes the solution of equations of the first degree with one or two unknowns, and of simple quadratic equations with one unknown, the square root of binomials, the progressions, logarithms, compound interest and annuities, maxima and minima.

In geometry the study of regular polygons, circles, and transversals is emphasized.

The trigonometric functions are defined, and the fundamental formulas are developed and applied. Quite a good deal of attention is devoted to surveying, especially leveling. Numerous figures are drawn to scale.

DENMARK.—The eleventh school year is the second year of the Gymnasium. Two periods a week are devoted to the study of mathematics, in the classical and in the modern language gymnasium, and six periods a week are devoted to the subject in the mathematical-scientific Gymnasium.

The trigonometric functions are defined and represented graphically, and the principal formulas of plane trigonometry are developed and applied. Some attention is devoted to the subject of goniometry.

The formulas for the surfaces and volumes of regular solids are developed and the fundamental ideas of conic sections are presented. The principal theorems of solid geometry are studied. A good deal of emphasis is put upon the study of spherical triangles and of symmetry and similarity.

ENGLAND.—The eleventh school year is the last year of the central school. By the time a boy has completed the work of this year, he should be able to solve any ordinary problem in arithmetic, especially any problem of a practical nature. Workshop methods are emphasized. Constructions and approximations are given a good deal of attention. Many of the problems involve weights, volumes, and density. In some schools simple surveying is given and graphs are taught.

The course in algebra includes the study of quadratics, graphs, fractional coefficients, and indices, formulas, radicals, logarithms, arithmetical and geometric progressions.

The geometry of previous years is reviewed and extended, and the work is closely correlated with mechanical drawing and with science. The pupils study the circle, the ellipse, easy vectors, and areas, and make simple constructions.

The work in trigonometry includes the study of logarithms and problems involving heights and distances. Angles with given sine, cosine, or tangent are constructed.

FINLAND.—The eleventh school year is usually the last year of the course. No details are given, but when the pupil has completed the course, he has finished the study of algebra up to permutations and combinations. He has studied plane and solid geometry and the elements of trigonometry. In the classical lycees, only the study of the right triangle is included in trigonometry.

FRANCE.—The eleventh school year is a one-year course to prepare for the second part of the bachelor degree. It is called the special mathematics course. Eight hours a week are devoted to the study of mathematics.

The theoretical parts of arithmetic are presented. Special emphasis is put upon the theory of prime numbers and of circulating decimals.

The course in algebra includes a review and an extension of the work of the preceding year. Equations of the first and second degrees involving two or more unknowns are solved. Inequalities of the first and second degrees are studied. Arithmetical and geometrical progression, logarithms, compound interest, and annuities are studied. The idea of coordinates is introduced, and some simple equations are derived. The functions $y=ax+b$ $y=\frac{ax+b}{a^1x+b^1}$ $y=ax^2+bx+c$ $y=ax^4+bx^2+c$ are represented graphically. The maximum and minimum values of certain functions having numerical coefficients are found. The areas of curves regarded as functions of the abscissa are computed.

The course in trigonometry includes a review and the application of trigonometry to surveying.

The course in geometry includes a thorough review of the work of preceding years and in addition to this, radical axes, polars, inversions, the theory of vectors, and central projections are studied. The ellipse, hyperbola, and parabola are considered, and their equations are derived. Problems involving tangents to these three curves are solved.

The course in descriptive geometry includes the study of the straight line, plane, circle, cone, cylinder, and sphere. Plane sections of solids are considered. Shadows are studied and the ideas underlying the construction of topographical maps are pre-

sented. A good deal of emphasis is put upon the subject of mechanics and cosmography during this year.

GERMANY.—The eleventh school year is the eighth year of the *Bürgerschule*, *Gymnasium*, *Realgymnasium*, and *Oberrealschule*.

The course in the gymnasium includes the study of arithmetical and geometrical progression, compound interest, and annuities. Solid geometry is completed and the elements of plane analytic geometry are introduced.

Realgymnasium.—Five hours a week are devoted to the subject of mathematics. Three hours are devoted to algebra and trigonometry, and two to descriptive geometry. The theory of permutations and combinations, the binomial theorem, determinants, and the general theory of equations of higher degree are studied. Plane and spherical trigonometry are completed and applied to the study of mathematical geography.

The course in descriptive geometry includes the graphic determination of points, lines, and planes, and problems involving these. Numerous problems in which the distances from given points, lines, and planes are to be determined are solved.

Oberrealschule.—Two hours a week are devoted to the study of analysis and to the elements of infinitesimal calculus. The algebra of previous years is reviewed. Permutations, combinations, and the binomial theorem are studied. The ideas of limits and of derivatives are introduced. The derivatives for powers, sines, and cosines are formed. The study is closely correlated with physics and mechanics.

Three hours a week are devoted to the study of analytic and synthetic geometry. Coordinate geometry is introduced. The straight line, circle, pencils of rays, tangents, poles, and polars are studied. Some attention is given to the theory of projections.

The course in descriptive geometry includes the study of the cylinder, cone, and sphere, and the introduction of perspective drawing.

HOLLAND.—The eleventh school year is the fifth year of the middle school and of the *Gymnasium*. Four hours a week are devoted to the study of mathematics.

Middle school.—The algebra of previous years is reviewed and extended. The study of trigonometry is continued, and circular functions are introduced. Plane geometry is reviewed; and the cone, cylinder, and sphere are studied. The course in descriptive geometry is completed up to the study of curved surfaces. Two hours are devoted to mechanics and one to cosmography.

Gymnasium.—Two hours a week are devoted to algebra and two to geometry. The course in algebra includes the study of quadratics, radicals, fractional and negative exponents, arithmetical and geometric progressions, logarithms and indeterminate equations of the first degree. The study of solids is completed.

In some *Gymnasias* the pupils who specialize in mathematics and physics take a more advanced course in mathematics. This course includes the above with the addition of maxima and minima, the theory of limits, and some trigonometry.

HUNGARY.—The eleventh school year is the seventh year of the *Gymnasium* and of the *Realschule*.

In the *Realschule* from three to five hours are devoted to the study of mathematics. The course includes the study of arithmetical and geometric progression, circulating decimals, compound interest, and annuities, Government loans, indeterminate equations of the first degree, the binomial theorem, simple formulas involving surfaces and volumes, the study of trigonometry and its applications to surveying and geography.

From two to three periods a week are devoted to the study of descriptive geometry. The course includes orthogonal projections, angles of inclination, the intersection of simple solids by straight lines and planes, shadow constructions, the revolution of plane and simple solid figures about vertical axes, and the introduction of new planes of reference.

Gymnasium.—From two to three hours a week are devoted to the study of mathematics. The course in algebra includes the study of compound interest and annuities,

Government loans, the progressions, circulating decimals, and the theory of quadratics.

The course in geometry includes the study of the coordinates of a point, the distance between two points, the graphs, and the important theorems of solid geometry, especially those involving surfaces and volumes.

ITALY.—The eleventh school year is the second year of the *licée*. Six hours a week are devoted to the study of mathematics. Books IV, V, VI, XI, and XII of plane and solid geometry are completed. The theory of proportion, power, equations of the first and second degrees with one and more unknowns, radicals, and progressions are studied. The elements of trigonometry are introduced.

JAPAN.—The eleventh school year is the fifth and, in some schools, the last year of the middle school.

Four hours a week are devoted to the study of mathematics, two hours being devoted to geometry and two to trigonometry.

The course in geometry includes the applications of proportion, the study of areas and loci, straight lines and planes, solid angles, polyhedra, the prism, the pyramid, the sphere, the cylinder, and the cone.

The course in trigonometry includes the functions and graphic representation of the functions for acute and obtuse angles, the development and use of the principal formulas, the solution of right and oblique triangles, the use of logarithmic tables, and the applications of trigonometry to surveying.

ROUMANIA.—The eleventh school year is the third year of the *lycée*. Four hours a week are devoted to the study of mathematics. A good deal of emphasis is put upon mechanics.

The course in algebra includes the study of sines, convergence, the number e , exponential functions, logarithms, derivatives of exponential, logarithmic and circular functions, homogeneous functions, and complex numbers.

In descriptive geometry, estimates of projections, the representation of a point by the aid of projections of two perpendicular planes, and the projection of a straight line are considered.

The pupil's knowledge of algebra and of geometry is utilized to a great extent in the study of mechanics.

RUSSIA.—The eleventh school year is the eighth and last year of the *Gymnasium*. From three to four hours a week are devoted to the study of mathematics. A complete review of the previous year's work in mathematics is given, one hour a week being devoted to the review in arithmetic. The factor theorem and the transformation of equations with the unknowns in the denominator are presented.

SWEDEN.—The eleventh school year is the third year of the *Gymnasium*. In the Latin *Gymnasium*, three hours, and in the *Realgymnasium*, four hours are devoted to the study of mathematics.

In the *Gymnasium*, trigonometry and solid geometry are completed. Arithmetical and geometrical progression and compound interest are studied. Graphs of simple functions, such as $y = \sin x$, are introduced.

In the *Realgymnasium*, in addition to the above course, analytic geometry is introduced and a good deal of attention is devoted to linear drawing. A thorough study is made of the theory of shadows.

SWITZERLAND.—The eleventh school year is the fifth year of the *Gymnasium* and the third year of the *Realschule*. In the literary *Gymnasium* two hours a week are devoted to algebra and one and a half hours to geometry. In the *Realgymnasium* two hours are devoted to algebra, one to descriptive geometry, and one to bookkeeping. In the *Realschule* two and a half hours to algebra, three to geometry, and three and a half to descriptive geometry.

Literary Gymnasium.—Logarithms, exponential equations, the progressions, compound interest, annuities, indeterminate equations of the first degree, and plane trigonometry are studied.

Realgymnasium.—In addition to the above course, continued fractions, equations of the second degree in two unknowns, and solid geometry are studied. Goniometry and trigonometry with its applications are introduced.

Realschule.—The course in the Realschule is the same as in the Realgymnasium, with the addition of the approximate solutions of equations of higher degree. The elements of spherical trigonometry applied to geography and the elements of plane analytic geometry are also introduced.

In both the Realgymnasium and Realschule descriptive geometry is studied. The course is more intensive in the Realschule. The relation of points, straight lines, planes and simple solids in vertical and horizontal projections are considered. The fundamental problems in construction are presented. The projections of the circle are studied, and triangles, prisms, pyramids, and regular solids are given special attention.

UNITED STATES.—The eleventh school year is the third year of the secondary school. The courses in mathematics vary somewhat, but in most of the schools a second course in algebra is given during the first semester, and solid geometry is studied during the second semester.

The course in algebra includes the study of radicals and exponents, quadratic equations with one and two unknowns, the theory of quadratic equations, equations in the quadratic form, the progressions, and the binomial theorem.

The course in solid geometry includes the study of Books VI, VII, VIII, and IX.

SUMMARY OF THE ELEVENTH YEAR'S WORK.

The eleventh school year is the third year of the secondary school of the United States. In most of the schools the course in mathematics includes a half year of algebra and a half year of solid geometry. In a few of the schools, the first half year is devoted to the study of solid geometry and the last half to the study of trigonometry.

In the schools of Europe the work in algebra during the eleventh school year includes the study of arithmetical and geometrical progressions, permutations and combinations, the theory of probability, the binomial theorem, and determinates. The preceding topics are included in the most advanced courses in Austria, France, Germany, Holland, Hungary, Sweden, Switzerland, and Roumania. The subject of trigonometry, which was completed during the tenth school year, is applied to surveying. Much more emphasis is put upon the subjects of cosmography and mechanics than in the United States. Descriptive geometry is studied in Austria, Germany, France, Holland, Hungary, and Switzerland, and the study of geometric drawing is continued in Austria. Analytic geometry is introduced in certain of the schools of Austria, France, Germany, Hungary, and Sweden, and the elements of differential calculus are introduced in a few of the Realschulen of Austria and in the Oberrealschulen of Germany. The calculus is applied in the study of physics. Spherical trigonometry is taught in several of the countries, and it is usually applied in the study of mathematical geography.

When a European boy has completed the eleventh school year, if he has elected the scientific course, he has studied more mathematics than is offered in any except a very few of the most progressive secondary schools in the United States.

XIII. THE WORK IN MATHEMATICS IN THE TWELFTH SCHOOL YEAR.

AUSTRIA.—The twelfth school year is the eighth and last year of the Gymnasium and of the Realgymnasium.

Gymnasium.—The mathematics of previous years is thoroughly reviewed, and various ideas are studied more intensively. Practical applications are emphasized, and a good deal of attention is devoted to the history of the subject and to the introduction of general ideas of means in advanced mathematics. In both the Gymnasium and Realgymnasium the elements of differential and integral calculus are presented. The subject matter is treated in close relation with the theory of functions as presented in previous years. Special attention is given to the following functions: $ax+b$, ax^2+bx+c , ax^3 , $\frac{c}{ax+b}$, $\frac{a}{x^2}$, \sqrt{x} , $\sin x$, $\cos x$, a^x and $\frac{a}{\log x}$. Problems are given to determine the tangents of curves, and velocities; maxima and minima are also studied.

BELGIUM.—The twelfth school year is the sixth school year of the Athénée Royal. In the Greek-Latin and in the commercial courses three hours a week are devoted to mathematics. In the Latin and the scientific courses six hours are devoted to mathematics.

Greek-Latin course.—The square and square root, radicals, quadratic equations, equations reducible to quadratics, special quadratics of higher degree, arithmetical and geometric progression, proportion, logarithms, interest, and annuities are studied.

The geometry of the previous year is reviewed, and solid geometry is completed. Trigonometry is introduced. Tables are used, and the formulas for the right triangle are developed and applied in numerous problems.

Scientific and Latin courses.—The algebra and plane geometry of previous years are reviewed, and trigonometry and its applications are studied. The different systems of numeration are considered, and computations involving various number scales are made. Short methods for multiplication and division are emphasized.

The application of indeterminant coefficients in functions, and the relation between the coefficients of algebraic equations in order to satisfy certain given conditions are studied. Certain problems in maxima and minima are given. Continued fractions are presented. Indeterminate equations of the first degree, permutations and combinations, the binomial theorem, the summation of series, powers and roots, radical equations, exponential equations, and Napierian logarithms are studied.

The course in plane geometry includes the study of functions, harmonic pencils, poles and polars, and the theorems of Pascal and Brianchon concerning the circle.

The course in solid geometry includes the general subject matter of Books VI, VII, VIII, and IX.

DENMARK.—The twelfth school year is the third and last year of the Gymnasium. In the classical and in the modern language courses two hours a week are devoted to the study of mathematics, and in the mathematics and scientific courses six hours are devoted to the subject.

The course includes a comprehensive review of the mathematics of previous years. The elements of analytic geometry are introduced. The pupils are taught how to determine points and curves by means of rectilinear and polar coordinates. The formulas for the equation of the straight line and circle, tangents, parabola, ellipse, and hyperbola are developed; and the principal theorems for tangents, normals, and asymptotes are studied.

In addition to this, the pupils elect one of the following courses:

(A) Determinants with their applications to linear equations, continued fractions and their applications, the general equation of the second degree treated analytically, the icosahedron and dodecahedron and the representation of similar polyhedra by

means of vertical projections on perpendicular planes, and the plane sections of these solids.

(B) Infinitesimal calculus. The course includes the computation with infinitesimal magnitudes as an introduction to differential and integral calculus, the continuity of fractions, the derived function of x^n , (n being rational) and of the trigonometric functions, of the sum, product, and quotient, and of functions of a function, the theorem of Rolle, and maxima and minima. Taylor's theorem for integral functions is presented. Definite and indefinite integrals are considered, and the simplest functions are integrated. Simple applications are made to geometry and physics.

ENGLAND.—The instruction in the central schools usually closes with the eleventh year. In the great private schools, such as Eton, Harrow, Rugby, and Winchester, there are boys from 13½ to 19 years of age. Many of these boys go to the universities or enter the army. In most of the great private schools, there are three courses:

- (a) Classical course, which corresponds roughly to the German Gymnasium.
- (b) The modern course, which corresponds roughly to the German Realgymnasium.
- (c) The army course.

Courses (a) and (b) are usually about equal in number of students. Course (c) usually has a smaller enrollment.

In the modern course from four to six periods a week are devoted to the study of mathematics. Details of this course are not available in the English reports. Great emphasis is put upon the entrance requirements in mathematics by Oxford and Cambridge, and more time is devoted to the subject in the classical courses in England than in corresponding courses in France or Germany.

FRANCE.—The twelfth school year is usually called *Classe de Philosophie*.

The relations between algebra and geometry are emphasized, and a good deal of attention is devoted to the subject of graphs. The pupils are taught how to construct a rectangle which has a given side and is equivalent to a given square, and numerous other similar constructions. The notion of coordinates is extended, and the study of functions is continued. Squared paper is used in the determination of areas. The theory of limits is discussed. The formula for the area of a parabola is derived. The application of the methods of infinitesimal calculus to the evaluation of surfaces and volumes of figures considered in elementary geometry is made.

GERMANY.—The twelfth school year is the ninth and last year of the *Bürgerschule*, *Gymnasium*, *Realgymnasium*, *Realschule*, and *Oberrealschule*.

Gymnasium.—The formulas of elementary trigonometry are applied to mathematical geography and to elementary astronomy. A comprehensive review of the mathematics of previous years is given, and applications to physics are especially emphasized. The concept of coordinates is introduced and applied to the study of conics.

Realgymnasium and Realschule.—Five hours a week are devoted to the subject of mathematics and two to physics. The subjects are very closely correlated. Three hours are usually devoted to the study of plane analytic geometry and a comprehensive review of the mathematics of previous school years. The study of analytics includes the point, straight line, and circle. Two hours are usually devoted to the study of descriptive geometry. Pyramids, prisms, cones, cylinders, and spheres, and sections of these bodies, are presented. The ellipse and parabola are usually not considered. In some schools cubic equations and maxima and minima are studied.

Oberrealschule.—Five hours a week are devoted to the study of mathematics. The course includes both analytic geometry and infinitesimal calculus. Logarithms and exponential functions with their derivatives are studied. Indefinite and definite integrals with simple exercises are introduced. The principles of calculus are applied to exercises in mechanics.

The course in geometry includes the study of conics treated both analytically and synthetically. These curves are regarded as sections of right circular cones.

The theorem of Quetlet-Dandelin is introduced. The relation between algebra and geometry is especially emphasized.

The course in descriptive geometry is a continuation and extension of the work of the eleventh school year.

A comprehensive review of the mathematics of previous years is given, and the historical development of the subject is especially considered.

HOLLAND.—The twelfth school year is the sixth year of the Gymnasium. It is sometimes called the preparatory year. Plane and spherical trigonometry are studied, and the elements of analytic geometry are introduced. A comprehensive review of the mathematics of previous school years is given. Especial emphasis is put upon the study of permutations and combinations, the theory of probability, determinants, continued fractions, higher series, and functions. The correlation between mathematics and physics is emphasized.

HUNGARY.—The twelfth school year is the eighth and last year of the Bürgerschule, Gymnasium, and Realgymnasium.

In the Gymnasium and Bürgerschule two hours a week are devoted to mathematics, and in the Realschule three hours are devoted to the subject of mathematics and two to descriptive geometry.

Gymnasium and Bürgerschule.—Permutations and combinations, the theory of probability, the binomial theorem, and Pascal's triangle are studied, and a comprehensive review of algebra is made. The formulas of spherical trigonometry are applied in the study of geography. The elementary ideas of coordinates are introduced. The study of free-hand drawing is continued and a thorough review of geometry is made.

Realschule.—A comprehensive review of the algebra of previous years is made. The idea of coordinates is introduced, and the principal equations of points, distances, straight lines, and circles are developed and applied. The ellipse, parabola, and hyperbola are studied as geometric loci, and the entire subject of geometry is thoroughly reviewed.

The course in descriptive geometry includes the study of orthogonal projections, the representation of cones, cylinders, spheres, and the intersection of these bodies by lines and planes, tangent planes, shadow constructions, and a thorough review of the work of previous years.

ITALY.—The twelfth school year is the third and last year of the liceo. No mathematics is offered during this year.

JAPAN.—In most of the schools the middle school closes with the eleventh school year. When an additional year is offered, the time is usually devoted to a comprehensive review of the mathematics of previous years, and to a more intensive study of the subject.

ROUMANIA.—The twelfth school year is the fourth and last year of the lycée. Five hours a week are devoted to the study of mathematics.

The course in algebra includes the theory of roots, theorem of Rolle, Descartes's theorem, the solution of equations of higher degree, the study of integral, fractional and irrational roots, the methods of approximation, and other elementary ideas of the theory of equations.

The course in analytic geometry includes the study of rectangular coordinates, and problems concerning the straight line, circle, ellipse, hyperbola, and parabola, and their properties. A good deal of emphasis is put upon the study of cosmography, and mathematics is closely correlated with this subject.

RUSSIA.—The course in Russia closes with the eleventh school year.

SWEDEN.—The twelfth school year is the fourth and last year of the Gymnasium. In the Latin Gymnasium five hours a week and in the Realgymnasium six hours are devoted to the study of mathematics.

Latin Gymnasium.—The course includes a comprehensive review of the mathematics of previous years and the introduction of the elementary ideas of analytic geometry. Linear drawing is taught, and the principles of perspective are emphasized.

Realgymnasium.—The concept of derivatives is introduced and applied to finding maximum and minimum points and to the determination of equations for perpendiculars. Only simple expressions, such as $y=x^2$, $y=x^3$, $y=\sqrt{x}$, $y=\sqrt[3]{x}$, and $y=\sin x$ are developed.

SWITZERLAND.—The twelfth school year is the sixth year of the Gymnasium and the fourth of the Realschule.

In the classical Gymnasium four hours a week, and in the Realgymnasium four and a half hours, are usually devoted to the study of mathematics. In the Realschule nine hours a week are frequently given to the subject.

In the Realgymnasium two hours are usually devoted to algebra, one and a half to geometry, and one to descriptive geometry. In the Realschule three hours are devoted to algebra, two and a half hours to geometry, and three and a half hours to descriptive geometry.

Gymnasium.—The course includes the solution of difficult quadratics and the study of permutations and combinations, the theory of probability, and the binomial theorem. The correlation of mathematics with mechanics and physics is emphasized. In some Gymnasias the elementary ideas of analytic geometry and of infinitesimal calculus are introduced.

Realschule.—The course includes the study of series, compound interest and annuities, permutations and combinations, and the binomial theorem. The study of analytic geometry is introduced and the fundamental formulas for a point, straight line, ellipse, parabola, and hyperbola are developed and applied. In most of the Realschulen the elements of infinitesimal calculus are introduced. In some of the Realgymnasias and Realschulen de Moivre's theorem and operations with complex numbers are introduced. Approximate methods for the solution of numerical and indeterminate equations, continued fractions, maxima and minima, and spherical trigonometry are also taught in a few of the Realgymnasias and Realschulen. In many of the Realschulen the elements of solid analytic geometry are also taught. About one-third of the Realschulen take up the general equation of the second degree with two variables. The study of conic sections is quite thorough in most of the Realschulen. In the courses in differential and integral calculus the transition from differences to derivatives is carried out by objective geometric methods in every case. Exponential and logarithmic functions are developed, and the rules for the derivative of the sum, product, and quotient, and of a function of a function are taught. The equations of tangents of the conic sections and of other curves are studied. In a few schools differential, but not integral, calculus is taught. In some schools differential calculus is taught, but only the merest elements of integral calculus are studied. In most of the schools the elements of infinitesimal calculus have been taught for many years.

The course in descriptive geometry includes the construction of plane sections, of the regular solids and their intersections; also the representation of right cylinders and cones and tangent planes.

THE UNITED STATES.—The twelfth school year is the last year of the secondary school. The courses in mathematics vary somewhat, but in most of the schools plane trigonometry is studied during the first half of the year and college algebra during the second half. In many of the schools the application of trigonometry to surveying is emphasized, and some practice in actual surveying is given.

Spherical trigonometry is usually not included, but it is not unusual for the course to include the study of the right spherical triangle.

The course in college algebra usually includes a thorough review of quadratic equations with two or more unknowns, graphs, proportion, the progressions, the binomial theorem for positive integral exponents, determinants, inequalities, permutations and combinations, the theory of probability, and methods for the approximation of roots. The mathematics of the twelfth school year is always elective.

The theorem of Quetlet-Dandelin is introduced. The relation between algebra and geometry is especially emphasized.

The course in descriptive geometry is a continuation and extension of the work of the eleventh school year.

A comprehensive review of the mathematics of previous years is given, and the historical development of the subject is especially considered.

HOLLAND.—The twelfth school year is the sixth year of the Gymnasium. It is sometimes called the preparatory year. Plane and spherical trigonometry are studied, and the elements of analytic geometry are introduced. A comprehensive review of the mathematics of previous school years is given. Especial emphasis is put upon the study of permutations and combinations, the theory of probability, determinants, continued fractions, higher series, and functions. The correlation between mathematics and physics is emphasized.

HUNGARY.—The twelfth school year is the eighth and last year of the Bürgerschule, Gymnasium, and Realgymnasium.

In the Gymnasium and Bürgerschule two hours a week are devoted to mathematics, and in the Realschule three hours are devoted to the subject of mathematics and two to descriptive geometry.

Gymnasium and Bürgerschule.—Permutations and combinations, the theory of probability, the binomial theorem, and Pascal's triangle are studied, and a comprehensive review of algebra is made. The formulas of spherical trigonometry are applied in the study of geography. The elementary ideas of coordinates are introduced. The study of free-hand drawing is continued and a thorough review of geometry is made.

Realschule.—A comprehensive review of the algebra of previous years is made. The idea of coordinates is introduced, and the principal equations of points, distances, straight lines, and circles are developed and applied. The ellipse, parabola, and hyperbola are studied as geometric loci, and the entire subject of geometry is thoroughly reviewed.

The course in descriptive geometry includes the study of orthogonal projections, the representation of cones, cylinders, spheres, and the intersection of these bodies by lines and planes, tangent planes, shadow constructions, and a thorough review of the work of previous years.

ITALY.—The twelfth school year is the third and last year of the liceo. No mathematics is offered during this year.

JAPAN.—In most of the schools the middle school closes with the eleventh school year. When an additional year is offered, the time is usually devoted to a comprehensive review of the mathematics of previous years, and to a more intensive study of the subject.

ROUMANIA.—The twelfth school year is the fourth and last year of the lycée. Five hours a week are devoted to the study of mathematics.

The course in algebra includes the theory of roots, theorem of Rolle, Descartes's theorem, the solution of equations of higher degree, the study of integral, fractional and irrational roots, the methods of approximation, and other elementary ideas of the theory of equations.

The course in analytic geometry includes the study of rectangular coordinates, and problems concerning the straight line, circle, ellipse, hyperbola, and parabola, and their properties. A good deal of emphasis is put upon the study of cosmography, and mathematics is closely correlated with this subject.

RUSSIA.—The course in Russia closes with the eleventh school year.

SWEDEN.—The twelfth school year is the fourth and last year of the Gymnasium. In the Latin Gymnasium five hours a week and in the Realgymnasium six hours are devoted to the study of mathematics.

Latin Gymnasium.—The course includes a comprehensive review of the mathematics of previous years and the introduction of the elementary ideas of analytic geometry. Linear drawing is taught, and the principles of perspective are emphasized.

Realgymnasium.—The concept of derivatives is introduced and applied to finding maximum and minimum points and to the determination of equations for perpendiculars. Only simple expressions, such as $y=x^2$, $y=x^3$, $y=\sqrt{x}$, $y=\sqrt[3]{x}$, and $y=\sin x$ are developed.

SWITZERLAND.—The twelfth school year is the sixth year of the Gymnasium and the fourth of the Realschule.

In the classical Gymnasium four hours a week, and in the Realgymnasium four and a half hours, are usually devoted to the study of mathematics. In the Realschule nine hours a week are frequently given to the subject.

In the Realgymnasium two hours are usually devoted to algebra, one and a half to geometry, and one to descriptive geometry. In the Realschule three hours are devoted to algebra, two and a half hours to geometry, and three and a half hours to descriptive geometry.

Gymnasium.—The course includes the solution of difficult quadratics and the study of permutations and combinations, the theory of probability, and the binomial theorem. The correlation of mathematics with mechanics and physics is emphasized. In some Gymnasias the elementary ideas of analytic geometry and of infinitesimal calculus are introduced.

Realschule.—The course includes the study of series, compound interest and annuities, permutations and combinations, and the binomial theorem. The study of analytic geometry is introduced and the fundamental formulas for a point, straight line, ellipse, parabola, and hyperbola are developed and applied. In most of the Realschulen the elements of infinitesimal calculus are introduced. In some of the Realgymnasias and Realschulen de Moivre's theorem and operations with complex numbers are introduced. Approximate methods for the solution of numerical and indeterminate equations, continued fractions, maxima and minima, and spherical trigonometry are also taught in a few of the Realgymnasias and Realschulen. In many of the Realschulen the elements of solid analytic geometry are also taught. About one-third of the Realschulen take up the general equation of the second degree with two variables. The study of conic sections is quite thorough in most of the Realschulen. In the courses in differential and integral calculus the transition from differences to derivatives is carried out by objective geometric methods in every case. Exponential and logarithmic functions are developed, and the rules for the derivative of the sum, product, and quotient, and of a function of a function are taught. The equations of tangents of the conic sections and of other curves are studied. In a few schools differential, but not integral, calculus is taught. In some schools differential calculus is taught, but only the merest elements of integral calculus are studied. In most of the schools the elements of infinitesimal calculus have been taught for many years.

The course in descriptive geometry includes the construction of plane sections, of the regular solids and their intersections; also the representation of right cylinders and cones and tangent planes.

THE UNITED STATES.—The twelfth school year is the last year of the secondary school. The courses in mathematics vary somewhat, but in most of the schools plane trigonometry is studied during the first half of the year and college algebra during the second half. In many of the schools the application of trigonometry to surveying is emphasized, and some practice in actual surveying is given.

Spherical trigonometry is usually not included, but it is not unusual for the course to include the study of the right spherical triangle.

The course in college algebra usually includes a thorough review of quadratic equations with two or more unknowns, graphs, proportion, the progressions, the binomial theorem for positive integral exponents, determinants, inequalities, permutations and combinations, the theory of probability, and methods for the approximation of roots. The mathematics of the twelfth school year is always elective.

SUMMARY OF THE TWELFTH YEAR'S WORK.

The twelfth school year is the last year of the secondary school in the United States. In many of the schools the first half of the year is devoted to the study of solid geometry and the last half to trigonometry or to business arithmetic. In some of the schools the first half of the year is devoted to the study of plane trigonometry and the last half to the study of college algebra. It is rare that courses in spherical trigonometry, beyond the study of the right spherical triangle, are offered in the United States.

In practically all of the European countries the twelfth school year begins or ends with a comprehensive review of the mathematics of the preceding years. Special emphasis is put upon such reviews in Austria, Germany, Denmark, Holland, and Hungary. The practical applications of mathematics are emphasized in most of the countries, and in Austria and Germany some attention is devoted to the history of mathematics. Spherical trigonometry is offered in the schools of Holland, Germany, Hungary, and Switzerland; and analytic geometry is studied in Denmark, Germany, Austria, Hungary, Sweden, Switzerland, and Roumania. In a few of the Cantons of Switzerland solid analytic geometry is studied. Descriptive geometry is offered in Germany, Austria, Hungary, and Switzerland, and advanced algebra is studied in most of the countries. Differential and integral calculus are offered in the schools of Austria, Belgium, Denmark, France, Sweden, Switzerland, Russia, Germany, and Roumania.

The relations between algebra and geometry are especially emphasized in France, and the relations between mathematics and physics receive special emphasis in Germany, Holland, and Switzerland.

When a European boy has completed his twelfth school year he has had the opportunity of studying more mathematics than is offered in any of the secondary schools of the United States. He has had more practice in applying his mathematics in physics, cosmography, and mathematical geography than is the case with the American boy. The simultaneous study of several mathematical subjects results in a more complete mastery of each. He sees the unity of mathematics in a way that is seldom true with the American boy. He can use his arithmetic and algebra in the solution of geometrical problems and his arithmetic and geometry in the solution of algebraic problems much better than the average American boy. He has some knowledge of analytic geometry and of the infinitesimal calculus. The frequent drills and reviews so common in European schools have furnished him with a large number of mathematical facts and formulas that he can use more readily than his American brother. Mathematics to him is an interesting and a fruitful subject, because he has learned to appreciate something of its deeper significance.

XIV. THE WORK IN MATHEMATICS IN THE THIRTEENTH SCHOOL YEAR.

In Belgium and in Switzerland the course in the secondary schools extends over a part of the thirteenth school year.

In Belgium the thirteenth school year is the seventh and last year of the *Athénée Royal*. In the commercial course two hours a week, in the Greek-Latin three hours, and in the Latin and in the scientific courses eight hours a week, are devoted to the study of mathematics.

Greek-Latin course.—The subjects of geometry and algebra are thoroughly reviewed, and the progressions, logarithms, annuities, and loans are especially emphasized. The theorems for the surface and volume of the prism, pyramid, cone, and sphere are applied in numerous problems. Spherical geometry is given a good deal of attention.

The fundamental formulas of trigonometry are studied and applied in the solution of triangles. The application of trigonometry to surveying is emphasized, and the pupils learn to use the surveyor's instruments.

Scientific and Latin courses.—Two hours a week are devoted to review and to new applications of the mathematics of previous years. Determinants are studied and applied in the solution of equations. The principal theorems of spherical trigonometry are developed and applied. The study of analytic geometry is continued and the principal formulas for the straight line and circle are developed and applied. Both rectilinear and polar coordinates are used, and the tables are taught for the transformation of coordinates. Poles and polars are extensively studied, and the equations of conic sections are developed.

The course in descriptive geometry includes the study of the principal theorems relating to points, straight lines, and planes; simple rotations are introduced.

In most of the Cantons of Switzerland the final year of the course lasts but one semester. A thorough review of the mathematics of previous years is given, and the study of plane analytic geometry and calculus is extended.

Tables 2 to 6 indicate the time at which each subject is introduced into the various types of schools and the school years during which the subject is taught.

The nomenclature of some of the mathematical subjects varies to such an extent in the various countries that it is not possible to be exact in all details in such tables. These tables are intended to indicate usual practices, and not exceptional cases.

The term geometry, as used in Table 4, includes all that is usually thought of in this country under the headings of observational, demonstrative (plane and solid), and descriptive geometry and geometric drawing. In many cases the reports of the countries do not indicate the divisions between two types of geometry sufficiently to justify the construction of a separate graph for each.

XV. GRAPHIC REPRESENTATION OF WORK IN MATHEMATICS.

TABLE 2.—Years of study of arithmetic.

Age.....	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18
School year.....	1	2	3	4	5	6	7	8	9	10	11	12
<i>Austria:</i>												
Volksschule, 5-year course												
Bürgerschule, 3-year												
Gymnasium, 5-year												
Realschule, 5-year												
Realgymnasium, 4-year												
<i>Belgium:</i>												
Primary, 6-year												
Middle, 3-year												
Athénée, 5-year												
<i>Denmark:</i>												
Folkeskole, 8-year												
Intermediate, 4-year												
Realklasse, 1-year												
<i>England:</i>												
Elementary, 8-year												
Secondary, 1-year												

TABLE 6.— *Years of study of analytic geometry and the calculus.*

Age.....	Analytic geometry.					The calculus.					
	14-15	15-16	16-17	17-18	18-19		14-15	15-16	16-17	17-18	18-19
	9	10	11	12	13		9	10	11	12	13
<i>Austria:</i>											
Gymnasium, 2-year.....						1 year.					
Realschule, 2-year.....						2 yrs.					
Realgymnasium, 2-year.....						1 yr.					
<i>Belgium:</i>											
Athénée, 2-year.....											
<i>Denmark:</i>											
Gymnasium, 1-year.....						1 yr.					
<i>England:</i>											
Private preparatory, 1-year...						1 yr.					
<i>France:</i>											
Lycée, 2-year.....						1 yr.					
<i>Germany:</i>											
Gymnasium, 2-year.....											
Realgymnasium, 2-year.....						1 yr.					
Oberrealschule, 3-year.....						2 yrs.					
<i>Holland:</i>											
Gymnasium, 1-year.....											
<i>Hungary:</i>											
Realschule, 1-year.....											
Gymnasium, 2-year.....											
Bürgerschule, 1-year.....											
<i>Roumania:</i>											
Lycée, 1-year.....											
<i>Russia:</i>											
Realschule, 1-year.....						1 yr.					
<i>Sweden:</i>											
Gymnasium, 1-year.....						1 yr.					
Realgymnasium, 1-year.....											
<i>Switzerland:</i>											
Gymnasium.....											
Realschule, 2-year.....						2 yrs.					
<i>United States of America:</i>											
[Analytic Geometry is seldom taught in secondary schools.]											

XVI. CERTAIN IMPORTANT POINTS OF DIFFERENCE BETWEEN THE WORK IN MATHEMATICS ABROAD AND IN THE UNITED STATES.

The European schools are doing certain kinds of work that we are not doing, some that we can not hope to do under present conditions, and some that we might not care to do if we could. They are also doing some work that we wish we could do, and some that we shall probably do before many years have elapsed.

In every country of Europe the secondary school period extends over at least six years. In most of the countries the majority of the teachers above the primary school have had the advantage of college or university training. The teachers have a margin of scholarship that is not common among teachers in the United States.

Abundant provision is made for daily drill in mathematics. The educator of Europe realizes that this daily drill is absolutely necessary in order to give the pupil a real mastery of number facts and relations. A little smattering of the subject will not suffice. The pupil is expected to know thoroughly certain facts and principles, and to this end daily drill is provided. No small part of the thoroughness in detail, which is so characteristic of most of the schools of Europe, may be traced to this drill. The American pupil has some information on a great variety of topics, but much of his knowledge is vague and indefinite, rather than clear-cut notions about definite things.

Everywhere algebra is introduced earlier than in the United States. In certain of the German schools some work in algebra is introduced during the sixth school year, and in no country, except the United States, is this introductory work postponed later than the seventh school year.

Some instruction in constructional, observational, or intuitive geometry is always offered during the sixth, seventh, and eighth school years. This instruction is always of a propædæutic nature. Much emphasis is placed upon estimates and constructions.

In all of the schools of Europe algebra and geometry are studied simultaneously during a considerable number of years. The various mathematical subjects are more closely correlated than in this country. A pupil who is studying geometry can use his arithmetic and his algebra more readily than is the case with the average American boy. The introduction of the trigonometric functions while the pupil is studying similar figures in geometry has the sanction of most of the best teachers abroad. The distinction between plane and solid geometry is much less marked than in this country. This is due, in part at least, to the fact that models are very extensively used in the study of geometry.

Everywhere the attempt is being made to find genuine applications of mathematics that are really within the experience of the pupil and to link the subject of mathematics as closely as possible with the activities of real life. Drawing and physics are frequently taught by the same teacher, and the correlation between these subjects is found to be to the advantage of each.

European school men believe that a course in mathematics should be planned by those who know some mathematics rather than by educators who are practically ignorant of the subject. The reports do not indicate that the schools of Europe are hearing a demand for weak algebra and anemic geometry, or even for no work in these subjects. If any pressure of this sort exists, it has hitherto produced no modification of the course of study.

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I. Mathematics in the elementary schools of the United States.

II. Mathematics in the public and private secondary schools of the United States.

III. Mathematics in the technical secondary schools of the United States.

IV. Training of teachers of elementary and secondary mathematics.

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LETTER OF TRANSMITTAL

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,

Washington, August 31, 1914.

SIR: Education for life must include much more than the conning and reciting of lessons in textbooks and the working out of assigned tasks in the laboratory. Among other things in a country and a civilization like ours, it must include some instruction in the simple principles of economics and some training in the use of money and in habits of thrift. The increasing use of the school savings bank indicates one simple, easy, and practical method of making this a part of the education of the schools. The general adoption of the school savings banks by the schools of the country would, I believe, result in much good. To give information about the origin and growth of the school savings banks and the methods of conducting them, I recommend that the accompanying manuscript, prepared by Mrs. Sara Louise Oberholtzer in cooperation with this bureau, be published as a bulletin of the Bureau of Education.

Respectfully submitted.

P. P. CLAXTON,
Commissioner.

The SECRETARY OF THE INTERIOR.

SCHOOL SAVINGS BANKS.

I. INTRODUCTION—THE VALUE OF SCHOOL SAVINGS BANKS.

The value of school savings banks is widely recognized. School saving develops the child's individuality and self-responsibility, causing him to consider the earning value of money, and to understand it as a comfort factor and a power for good. If the proper idea is imparted in the teaching, the saving of pennies becomes an incentive to industry, honesty, and generosity; the child learns that only by owning will he have the power to expend and distribute.

Realization of the accumulative force and interest-bearing ability of small sums of money becomes an incentive to save from waste. As a nation we need to develop the sense of economy and thrift. In general, Americans know better how to earn than how to save. We need to be constantly reminded that it is not so much the lack of ability to acquire money as lack of judgment in expending it wisely that occasions penury.

A large amount of practical education—moral, industrial, and economic—would undoubtedly lessen the proportion of crime and pauperism. The nonproducing classes, when educated and trained, become producers, thereby improving the community at large. If the paupers and criminals, who are a drain on society and a menace to civilization, had been given instruction in moral and practical economy when young, few, if any, of them would have become what they are.

It is very difficult to teach thrift to men and women who have grown up ignorant of its first essentials. In children, however, we have unwrought material to work with, and we can as readily impress them with the habit of economy as we can teach them arithmetic and geography. Frugality is one of the most important factors of citizenship. When every boy and girl in the country has a bank account of from \$100 to \$400 at the time of graduation from the elementary school course—an achievement possible in any community where school savings banks are in operation—the future will be far more secure. An accumulated fund of this sort makes it possible for the boy or girl to engage in a small business, go on with higher study, or do whatever most appeals to him or her.

It is of great economic value to a nation to have a frugal, understanding people, and if for no other reason than that of national well-being,

practical thrift should be taught in the schools. Recently many prominent schoolmen have come to realize the fundamental importance of thrift-teaching. Thus Dr. Nathan C. Schaeffer, superintendent of public instruction for Pennsylvania, writes:

It affords me pleasure to bear testimony to the value of thrift-teaching in connection with school savings banks as they have been introduced into some schools in Pennsylvania. Careful management of these savings and the teaching of thrift by this means will prepare the pupils for their future duties as citizens and the makers of homes. I wish school savings banks abundant success.

Mr. Charles D. Hine, secretary of the State Board of Education of Connecticut, is active in his advocacy of school savings banks. He has mailed pamphlets on school savings to his superintendents, and says, "I think practical thrift should be taught in all public schools."

State Supt. Hyatt, of California, writes: "I should be glad to see school savings banks in all the schools of California. They are worthy of high commendation."

Superintendent of Schools W. J. McKone, of Albion, Mich., where school savings have been collected since 1901, says: "Our experience with the school savings bank has been exceedingly satisfactory. I become more and more convinced of its educational value to our young people;" and the secretary of the board of education in the same city adds: "As a department of our public schools for the teaching of economy, thrift, and business habits, I consider the school savings bank of great value; any system of education is incomplete without it."

The report of the public schools of Augusta, Me., where the school savings system was taken up in 1900 and has been actively popular ever since, declares:

It is an institution to be heartily encouraged. While the deposits of the pupils frequently reach surprisingly high figures, and have been known to make possible college education, the chief value of this banking lies in its power as a developer of character. The value of the deposit is not at all commensurate with the worth of the habit encouraged thereby—power of self-denial, prudence, thrift, and economy. Gum and candy are sacrificed, while pennies, teeth, and health are saved.

Supt. Marshall, of Augusta, adds his personal word:

The thrift-teaching is invaluable here. The habits of self-denial, industry, thoughtfulness, and frugality encouraged and acquired by the children in the school savings work are beyond compute. Augusta gives it unqualified approval.

Mr. Addison L. Jones, superintendent of the West Chester (Pa.) public schools, where the school savings banks system was adopted in 1890 and has been in continuous successful use, said recently:

It has almost weeded the cigarette habit out of our school. It is the making of our boys. One of our pupils saved \$750, and is putting himself through college. Another boy used his school savings to start a little business, and he is now partner in a good grocery store here. I believe that the thrift habit is of more practical value than anything we teach.

A number of the public school scholars of Atlantic City, N. J., were able to take a course in the State normal school by means of their school savings, and from Norristown, Pa., comes this word:

A whole book of incidents could be readily collected of the help and advantage the thrift habit has been to our former pupils, who are now men and women. Good habits and a good bank account are fine assets.

Mr. A. D. Call, former principal of the Henry Barnard school, in Hartford, said of the work there:

It has decreased the use of cheap candy and things that are hurtful to children. A candy shop near the entrance of the school building has been closed for lack of trade. The attention of the scholars is more carefully on their studies. Seventy-five per cent of them are depositors. I believe fully in the efficiency and the efficacy of school banking.

Mrs. A. R. Cowles, of Barton, Vt., for 10 years W. C. T. U. superintendent of school savings banks in that State, where the work has been successful in Newport, Middlebury, Barton, Brattleboro, and St. Johnsbury public schools, writes under date of March 8, 1914:

Our State superintendent of education very much approves of school savings banks. At the teachers convention just held in Barton the teachers were anxious to get school savings literature, and the system has been taken up in Newport Center, Westfield, and North Troy schools and in one school in Montpelier. Our people now see the value of training boys and girls to good habits and frugality.

Interesting evidence as to the economic and educational value of thrift-teaching in small country schools comes from Miss Helen Garrett, secretary of the Edgemoor (Del.) Iron Works, who established the school savings system as an economic help to the 50 scholars in the public school there in 1898. The children were chiefly those of the employees of the iron works and have deposited since that time \$5,533.64, as their school savings.

Several people who started saving in the school have moved to other places, but a great many of these continue to make deposits in the savings bank, though independent of any school records. Through the school work some of the parents have started accounts, influenced by the children's example, and now one of the mothers in our village has over \$600 deposited in her own name.

From Birmingham and Leeds, England, where school savings are collected in all the public schools, comes this:

Bits of money and bits of time are put to better uses. Boys and girls are learning the bearing thrift has on cleanliness and industrious habits.

These opinions of educators and others from different points where school savings banks have been long in use may give some idea of the general estimate of thrift-teaching where it has been tested.

Mr. John Henry Thiry, who was so deeply impressed with the economic and educational value of the work to which he devoted himself, said, in one of his many prints on the subject:

If school savings banks were generally established and well managed, there would be fewer mendicants on the streets asking for alms, fewer aged and infirm people in

charitable institutions through improvidence, fewer devotees to the liquor habit, and less discontent and destitution everywhere. Thoughtlessness is a great tributary to improvidence and want. Surely the masses need education in thrift. This is the province of the school savings banks system. It is an educational factor. It claims to teach virtue, because all virtues require self-control and husbanding of strength and resources, and these things invariably lead to thrift. The saving of time, of strength, of health, of intellectual force, of moral integrity, are all allied to the saving of money.

POSTAL SAVINGS AND SCHOOL SAVINGS.

There can be a stimulating relation between postal savings banks and school savings banks. In the short time in which the postal savings plan has been in operation, it has amply demonstrated its effectiveness in offering a wide-open opportunity for people of all ages over 10 years to deposit conveniently and safely small amounts of money. There were 10,903 offices where patrons could deposit postal savings on January 31, 1914, and \$40,037,884 on deposit. That about one-tenth of the depositors were children from 10 to 14 years of age exemplifies the willingness of children to accept and profit by the opportunity of saving money they might otherwise waste. It also indicates the propriety of giving systematic instruction in thrift and allowing children to deposit their pennies before they are 10 years of age. The school savings bank is the guiding, training force; the postal savings bank the safe-guarding force. Both are requisite.

Instruction in conserving money and applying it wisely can not be impressed too early on a child; the early lessons in the employment of money belong to the schoolroom. The postal savings directors and receivers, be they ever so anxious to help the children, have little opportunity to do so. Children who have expended their pennies, nickles, and dimes in candy shops and moving-picture shows until they are 10 years old, with no thought of self-denial, may later go to the post office with a dime and buy one of the cards, but they are very likely not to have the perseverance to hold the card until they accumulate the \$1 that is to be exchanged for a certificate of deposit. School savings banks are needed to prepare young people, especially those who have no careful home training, to profit by the postal savings opportunity.

II. THE SCHOOL SAVINGS MOVEMENT IN FOREIGN COUNTRIES.

School savings banks are in use in all the public schools in France and Belgium, and in some of the schools in England, Germany, Denmark, Italy, Australia, Switzerland, and Canada. In Reykjavik, Iceland, the savings system was introduced by the Women's Christian Temperance Union in 1908, and the savings of

750 scholars average 2,500 Danish crowns yearly. In Parral, Mexico, it was established by the aid of a missionary in 1898, and it was introduced into the schools of Summerfield, Prince Edward Island, in 1891.

Beginnings.—Francois Laurent, born in Belgium 1810, who spent most of his life as professor of civil law in the University of Ghent, dying there in 1887, formulated the system of teaching children thrift through school savings. He was a voluminous writer, publishing 18 volumes on "The History of Humanity," 33 volumes on "The Principles of Civil Law," and several works on saving, thrift, and cognate subjects. He won the Guinard prize, 10,000 francs, for his pamphlet "Conferences sur l'Epargne dans les Ecoles" (Lectures on Savings in the Schools) in 1873. The Guinard prize was founded by Dr. John Baptist Guinard, who died in 1867, bequeathing to the city of Ghent a legacy with the provision that every five years a prize of 10,000 francs should be awarded to the person who should produce a work or make an invention for elevating and placing the proletaire in the ranks of the bourgeois. The first prize awarded by the Government under the provisions of this legacy was given to Prof. Laurent; 12,000 copies of his pamphlet were published in Flemish and French by the Government and sent to the magistrates and schools throughout the Kingdom. This treatise on savings in the schools served not only to multiply school savings banks, but to increase largely the depositors among the laboring classes in other savings banks.

Prof. Laurent's work in Belgium attracted the attention of leaders of education in other countries. Articles were published in the newspapers of London and Paris and other places regarding the work. At the World's Exposition in Vienna in 1873 there was a conference of leading educators—Ferencz Deak, of Hungary; M. de Malarce, of France; and Prof. Laurent. The chief subject considered was the adaptability of school savings banks to further the purposes they had in view—the amelioration of poverty and the improvement of individual and national life. In comparing notes they found there were no school savings banks in existence at that time, except in Belgium. M. de Malarce claimed—and not unjustly—that the idea of establishing such institutions originated with M. Dulac, a teacher in La Mau, France, who inaugurated it in his school in 1834 and continued it until 1870. Other attempts had been made by teachers in different countries, but they were isolated instances, and it remained for Prof. Laurent to formulate and popularize the plan that held and attracted the attention of the world.

School savings banks were organized throughout France in 1874, and the school or penny bank opened in England. In England it was decided to leave the introduction of school savings to the local

school boards and the voluntary action of the teachers, and the work is still conducted on that basis, being used in all the schools of some cities, but more often in certain schools and districts.

The bureau of education in France printed and distributed 22,000 copies of "A Manual of School Savings Banks," written by M. de Malarce in 1875 for the information and instruction of the teachers, and the innovation was given much popularity thereby. In a few years thereafter school savings banks were reported in 25,000 schools. The system had greater early use in the schools of Italy than in any other country, except Belgium and France.

In Canada the Victor Mission, with the approbation of the school board, began the collection of the school savings as a well-directed charity in 1894, and sent collectors or agents into a number of schools weekly for several years to receive the children's deposits and speak to them on the benefits of saving their pennies. It was entirely a charity mission and had devoted officers and members who collected and cared for the school savings, doing much good in the city of Toronto. School savings banks were established in the public schools of Winnipeg, Manitoba, and Galt and Barntford, in Ontario, in 1899, and the system continues to date in most successful use with them.

The Penny Bank of Toronto has branches in different cities and has largely aided in the extension of the work in Canada, especially in Ontario. By their latest report, for the year ending June 30, 1913, they have received as the children's school savings \$266,522.77, the amount coming from the public schools of Toronto, Barrie, Belleville, Berlin, Bowmanville, Brampton, Campbellford, Cavelton Place, Cobalt, Collingwood, Galt, Guelph, Hamilton, London, Midland, Montreal, North Bay, Oakville, Orangeville, Oshawa, Ottawa, Paris, Port Hope, Preston, Prince Albert, St. John (N. B.), Smiths Falls, Stratford, St. Thomas, Swansea, and Woodstock. The increase in deposits was \$49,815 over those of last year. Mr. M. A. Mackenzie, manager of the penny bank of Toronto, writes: "School savings have been established in 12 new schools during the year."

As to the present status of school-savings teaching in England, reports show that teachers are advised and expected, in reading lessons and so on, to inculcate in children the importance of thrift. In Hull the work is pronounced a great success. The actuary of the bank cooperating wrote:

The educational authorities arranged with this bank to establish school savings banks in the Hull schools, to be worked by the head teachers, and they are a great success. Interest on individual deposits of a scholar is allowed when his deposit amounts to £1. The interest on the aggregate undivided school deposits forms a scholarship fund, which opens out the higher or secondary schools to some of the children in the elementary schools. These scholarships are eagerly competed for each year, and examinations for them are managed by a cooperative committee.

Advices received late in 1913 from Baroness Emilie von Hausen, of Dresden, indicate that the school savings banks, on different systems, are much in use in Germany. In Dresden, as in France and Belgium, the card system is used. In Munich a system of ~~automats~~ *automats* is in vogue. In the regular schools of the latter city 15,500 scholars have saved 45,000 marks, while in the continuation and trade schools 869 students deposited 6,400 marks.

III. THE SCHOOL SAVINGS MOVEMENT IN THE UNITED STATES.

The first systematic attempt at a school savings bank plan in the United States, so far as is known, was that of Sereno F. Merrill, superintendent of schools of Beloit, Wis., who introduced the system in his schools in 1876. In 1873 Mr. Merrill had gone as State commissioner to the Vienna exposition and had there attended the conference on elimination of poverty at which Prof. Laurent's plan of school savings used in the schools of Ghent had been strongly indorsed.¹ Mr. Merrill thus had his interest aroused in the problem of systematic thrift-teaching, and it was the card system of thrift-teaching, originated by M. Dulac, perfected and exploited by Prof. Laurent, that he introduced into the Beloit public schools in 1876.

Although various newspaper articles were written about the plan and benefits of school saving for children by Mr. Merrill, Mr. John P. Townsend, of New York City, and others, apparently the work did not extend beyond the Beloit public schools, where it was used for five years.

Inquiry was made of Mr. Merrill as to why the system had been dropped in the Beloit school. He replied that the principal, Mr. Beach, had been called to Madison, and his successor did not continue the work. Mr. Beach was then asked for his estimate of the effect of school savings on the children. His reply was highly favorable:

The boys and the girls acquired industrious habits—were looking for and doing work in vacation. The system led to economy of time and energy, as well as of money. It made better and more faithful students. It promoted liberality in as much as it insured means with which to be generous when occasion presented.

In the winter of 1879 Capt. R. H. Pratt, superintendent of the Carlisle (Pa.) Indian Training School, established a saving system for the Indians under his supervision. The boys and the girls kept an average of \$10,000 to their credit for years, and took trunks, clothing, and books purchased with their own earnings back to their western homes, as well as some accumulations of their own school savings in money.

¹ See p. 11.

It was Mr. John Henry Thiry who instituted the school savings banks system on a permanent footing in the United States in 1885. Mr. Thiry was a native of Belgium. Coming to America in 1859, he built up a large book business in New York, and retired in 1873, devoting the remainder of his life to horticulture and to school work, particularly the school savings bank, which became the dominant interest of his later years. He was a friend of M. de Malarce, who had charge of the school savings banks movement in France. He corresponded with him and also with Prof. Laurent, of Belgium, in regard to school savings banks methods, evolving a system which he began operating in a third-ward public school in Long Island City, on March 16, 1885.

Mr. Thiry was a zealous, indefatigable worker. He had his system perfected before he presented it. He told the bankers what a privilege it was for them to care for the savings of the school children, who would later be men and women depositing much larger sums with them; he trained the teachers to enjoy the philanthropy of helping the children to save and deposit their small amounts of money, often earned, and to encourage them to deny themselves the excess of cheap sweets that so often break down the moral resistance and health of the boy and the girl as well as tend to general waste.

During 1886 the school savings banks system was installed in 8 additional schools in Long Island City, 1 school in Islip, Long Island, 4 in Elmira, N. Y., and 6 schools in Rutland, Vt. In 1887 it was established in 12 public schools in Lincoln, Nebr., and in 6 schools in Amsterdam, N. Y., and in 1888 at 4 additional points in New York, embracing 4 schools in Hornellsville, 1 in Jamestown, 2 in Buffalo, and the Y. M. C. A. Institute in New York City. In 1889 it was introduced in the public schools of Asheville, N. C., and elsewhere.

The work of Mr. Thiry in New York led directly to the introduction of school savings banks in Norristown and Pottstown, Pa., in 1890. Several village and district schools in Montgomery County adopted the system a few weeks later. During the same year the public schools in the cities of Chester and Williamsport, Pa., and a number of smaller towns in the eastern part of this State instituted the system. These places all have thrift-teaching still in force.

Popular interest was aroused and the school savings banks movement had rather a high tide in 1891. Educational meetings and conferences of bankers passed resolutions of approval. It was a subject of discussion at the first triennial meeting of the National Council of Women in Washington, D. C., in February, 1891, and later was made one of the 40 lines of effort actively favored by the National Woman's Christian Temperance Union. In 1892 Mr. Thiry reported that there were school savings banks at 52 different points in 12 States, with 27,430 pupils as depositors, and total deposits of \$207,428.76.

In 1910 the Massachusetts Legislature passed a bill entitled "An act to provide for compulsory instruction in thrift in the public schools." In 1911 the legislature passed an act authorizing savings banks to receive deposits from school children. The substance of this act is:

In order to encourage saving among the children in the schools of this Commonwealth any savings bank may, with the written consent of and under regulations approved by the commissioner, and in the case of public schools, by the commissioner and the school committee in the city or town in which the school is situated, arrange for the collection of savings from the school children by the principal or teachers of such schools or by collectors. All moneys so collected shall be entered on an individual deposit card furnished by the bank, but the total collections received by the savings bank from any one principal or teacher may be entered in the name of such principal or teacher, as trustee. When, however, the amount deposited by any one pupil and credited on the deposit card equals the minimum amount upon which interest is allowed, the savings bank shall issue a pass book to such pupil, and thereafter, when the amount deposited by the pupil and credited on the deposit card equals the sum of \$1, it shall be transferred to the deposit book by the savings bank. The principal, teacher, or person authorized by the savings bank to make collections from the school children shall be deemed the agent of the savings bank, and the savings bank shall be liable to the pupil for all deposits made with such principal, teacher, or other person and entered upon the deposit card, the same as if the deposit were made by the pupil directly with the bank.

Mr. Arthur B. Chapin, State bank commissioner of Massachusetts, who recommended this act to the legislature, had printed "Regulations and requests" in detail sent out with a copy of the act. They were as follows:

After any bank has been authorized to act for any school, its right shall not be revoked except with the written consent of both the school committee and the bank commissioner.

Any pupil may become a depositor in the school savings bank on bringing 1 cent or more and depositing with the teacher or principal or representative of the bank. The one receiving the deposit shall enter upon an individual card the name of the pupil making the deposit and the amount thereof, which card shall be returned to the pupil and kept by him or her. The deposit card is the receipt for the deposit. In case of its loss, immediate notice should be given to the teacher or person receiving the deposit. One cent may be charged the pupil for a duplicate deposit card issued in place of the one lost. When the deposit has been received from the pupil, it shall be entered by the person making the collection by name, date, and amount in a book to be called the "Pupil's Ledger." When the last collection of each month has been taken, the one receiving the deposits from the pupils shall send to the head of the school bank a memorandum of the name of each pupil having a balance and the amount of such balance as shown on the Pupil's Ledger. The form on which this information is made shall be called the "Monthly Deposit List" and shall be used by the head of the school bank or savings bank representative to check up the balance as it appears on his "Collector's Ledger" and shall be returned for use the succeeding month.

The total amount of money collected shall be entered on a deposit slip by amount only, and deposited with the savings bank by the head of the school bank, to his credit as trustee. Accompanying the deposit slip shall be a memorandum of those having sufficient balance to be entered upon a pass book, and the total of such amounts shall be entered as a charge against the trustee account.

Collections shall be made once in each school week between October 1 and June 1 of each school year.

No sums shall be withdrawn by the pupil except upon the regular bank day by an order, in proper form, signed by the pupil and approved by the parent or guardian, or one in charge of the school bank.

No entries are to be made in the pass book except by the bank officials.

No entries are to be made on the deposit card except by the teacher or one receiving the deposit.

Any interest earnings of the trustee account shall be charged with the expenses of the blank forms and then turned over to the head of the school bank for such school uses as he may decide. All amounts less than the minimum on which interest is allowed may be carried by the savings bank as a trustee account in the name of the school bank.

These regulations end with the request—

that the committee will encourage this effort to cultivate thrift among children by having the superintendent of schools or some member of the committee take active charge of the installation of school savings in the schools and arrange to have each principal interest the teachers therein; after the system is in operation its administration will require only 15 minutes per week.

Mr. Thorndyke, the present bank commissioner, has followed up the extension of thrift teaching in Massachusetts, so actively forwarded by Mr. Chapin, and many additional cities and towns have instituted school savings banks since the passage of this act.

New York, Minnesota, and California also have special laws covering the school savings work.

Since 1910 the bankers' organizations, especially the American Bankers' Association, have taken an active interest in school savings banks. Addresses on the subject have been delivered at conventions, resolutions passed, and "campaigns of thrift" have been instituted in various localities. Mr. E. G. McWilliam, secretary of the savings bank section of the American Bankers' Association, has directed a series of lectures on thrift topics by presidents and officers of banks and trust companies at Cooper Institute, in New York City, that were largely attended. Four hundred pupils in the Denver (Colo.) public schools wrote essays on "Money saving" this year, the Inter-State Trust Co. uniting with the Woman's Christian Temperance Union in offering the prizes. The prizes were awarded January 24, 1914. The two essays taking the first and second prizes were printed and distributed among the Denver school children.

IV. STATISTICS OF SCHOOL SAVINGS BANKS.

Statistics of school savings banks were collected by Mr. Thiry and those associated with him through 1910. No statistics were compiled for 1911, the year of Mr. Thiry's death. The 1910 figures showed 203,548 depositors, with \$5,051,644.50 deposited since the introduction of the school savings system. The New York Penny Provident Fund receipts made up \$1,527,334.61 of the amount, and the Cana-

dian and Australian receipts aggregated almost \$500,000 more. Statistics for 1912, compiled by the writer and made a part of the report of the Deputy Comptroller of Currency to Congress, showed savings collections in 1,149 public schools, by 167,529 pupils, with deposits since the establishment of the system in the various schools amounting to \$3,482,162.66. These figures were for schools in the United States only, and the funds of the Penny Provident Fund were not included.

The following statistics are for the year ending June 30, 1913, except that figures as late as February, 1914, are used in a few cases. No claim is made that the table includes all the schools in the United States where school savings are collected.

School savings banks in the United States.

Name of city or school.	Year.	Pupils on register.	Number of depositors.	Amount deposited.	Amount withdrawn.	Amount on deposit.
United States.....		1,839,174	216,806	\$4,256,068.15	\$2,668,751.33	\$1,256,335.40
North Atlantic Division.....		1,433,963	112,443	2,831,196.63	1,815,350.02	655,517.23
North Central Division.....		288,237	80,551	1,008,479.46	565,165.66	378,458.28
South Atlantic Division.....		5,481	1,748	43,951.71	39,961.80	8,736.80
South Central Division.....		10,703	1,533	6,044.50	3.00	5,626.50
Western Division.....		100,790	20,531	368,395.85	248,270.85	207,896.05
<i>North Atlantic Division.</i>						
<i>Maine:</i>						
<i>Augusta—</i>						
Lincoln School.....	1900	152	50	¹ 196.63	2.16	194.47
Middle Street School.....	1900	67	22	¹ 64.70	2.03	62.67
Nath School.....	1900	139	79	¹ 223.41	9.04	214.37
Smith School.....	1900	464	76	¹ 275.58	8.75	266.83
Webster School.....	1900	115	12	¹ 49.17	2.74	46.43
Williams School.....	1900	408	38	¹ 146.17	3.20	142.97
Belfast.....			225	3,456.78		
Rumford.....	1911	1,130	712	551.00	141.00	410.00
Waterville.....	1910	1,574		7,161.55		7,161.55
<i>New Hampshire:</i>						
Concord.....		2,503				6,126.57
Greenville.....	1912		35	80.00		82.00
Keene.....	1913	900	413	690.55	3.00	687.55
<i>Vermont:</i>						
Barton.....	1909			500.00		909.87
Brattleboro.....	1909	769				2,044.59
Burlington.....	1898	3,000	652	2,546.43	2,459.59	86.84
Hardwick (academy).....	1909	525	112	¹ 388.06	5.49	382.57
Middlebury.....	1906		194	1,169.56		842.65
Newport.....	1909	266	195	1,417.54		717.08
St. Albans.....	1912	1,100	588	3,467.70	801.40	2,666.00
<i>Massachusetts:</i>						
Andora.....	1912	1,287	722	3,945.67	430.04	
Attleboro.....	1908	2,467	1,184	21,439.16	20,268.47	1,170.69
Boston.....	1911	104,064	2,712	8,694.95	1,468.89	1,403.70
Boston Newsboys'.....	1911	900	250	998.22		
Brockton.....	1891	9,368	4,679	42,093.26	25,672.54	4,723.32
Cambridge.....	1911	16,877	3,931	17,445.14	3,651.32	13,793.82
Clinton.....	1904	1,897	518	18,668.50	18,266.01	402.49
Danvers.....	1912	1,650	600	1,699.37	1,158.10	425.09
Everett.....	1912	781	198	1,226.64	126.32	1,099.32
Fitchburg.....	1913	4,330	911	675.48	130.20	545.28
Gardner.....	1912	1,900	384	2,437.54	65.97	
Grafton.....	1911	272	81	387.37	296.56	90.81
Great Barrington.....	1911	905	328	2,340.65	216.67	2,051.12
Marlboro.....		2,166	834	25,538.59	7,198.31	13,669.41
Maynard.....	1905	1,129	243	448.52		
Melrose.....	1909	2,800	1,500	12,000.00	800.00	11,200.00
Milton.....	1899	1,490	620	10,342.84		329.09
Natick.....	1903	1,879	541	27,012.52		
Northampton.....	1911	2,800	1,369	3,871.89	41.59	3,871.89
Norwood.....	1912	1,721	680	2,774.18	604.93	2,169.25
Palmer.....	1911	1,580	633	6,770.26	1,722.23	1,548.03
Pittsfield.....		6,075		6,405.75	665.08	5,740.72

¹ For the school year to July, 1913.

School savings banks in the United States—Continued.

Name of city or school.	Year.	Pupils on register.	Number of depositors.	Amount deposited.	Amount withdrawn.	Amount on deposit.
<i>North Atlantic Division—Continued.</i>						
<i>Massachusetts—Continued.</i>						
Quincy.....	1908	6,000	2,050	\$29,905.00	.....	.....
Salem.....	1912	5,233	1,647	8,487.95	\$889.80	\$7,598.15
Southbridge.....	1912	951	254	463.12	.....	.....
Stoneham.....	1909	1,024	329	5,179.25	4,834.12	345.13
Wakefield.....	1913	2,225	170	418.27	21.59	396.68
Waltham.....	1912	3,442	771	3,670.00	780.00	2,890.00
West Tisbury.....	1911	46	29	172.96	12.24	160.72
Rhode Island:						
Central Falls.....	1901	2,057	824	4,348.47	1,002.15	3,346.32
Connecticut:						
Canaan.....	1911	.....	.....	212.98	.....	.....
Danbury (Balforth Avenue School).....	1910	584	309	1,374.10	327.29	1,046.81
East Canaan.....	1911	.....	.....	139.08	.....	.....
Hartford (Henry Barnard School).....	1906	2,031	726	26,509.18	1,190.72	25,309.46
Middletown.....	1910	1,089	420	5,072.00	2,415.30	2,656.70
New Milford.....	1913	425	201	167.32	.....	.....
North Windham.....	1910	61	35	101.10	5.58	95.52
Norwich.....	.....	3,231	706	649.99	.....	.....
Oaks.....	1910	63	40	282.61	1.02	629.71
Shelton (Huntington Schools).....	1909	1,172	760	2,166.73	479.56	1,687.17
South Windsor.....	1911	184	29	164.39	.74	163.65
Thomaston.....	1913	480	195	826.84	24.00	802.84
Watertown.....	1912	561	381	1,424.11	15.04	1,409.07
Willimantic (Windham Street School).....	.....	365	177	728.36	214.12	1,698.05
Windham Center.....	1910	67	35	90.97	1.68	237.99
New York:						
Babylon.....	.....	.....	10	19.45	706.68	412.29
Binghamton.....	1910	.....	365	5,817.98	5,792.51	25.47
Brooklyn.....	1911	1,100	615	3,410.11	2,617.26	792.85
Buffalo (organized charities).....	1892	48,384	3,995	.....	.....	3,306.60
Canastota.....	1910	857	106	692.69	120.89	571.80
Canton.....	1910	.....	.....	283.00	.....	283.00
Chilmark.....	1911	7	3	8.35	.....	8.35
Elmira.....	1910	4,452	2,712	23,267.95	3,439.06	19,828.89
Islip.....	.....	.....	34	2,483.81	256.03	3,333.38
Lawrence.....	1898	.....	398	2,465.05	3,054.04	5,255.88
Little Falls.....	1903	1,214	246	16,926.83	1,155.92	15,737.90
Long Island.....	1895	.....	1,797	53,050.92	31,601.04	44,529.42
New York City.....	1885	803,000	6,623	152,958.49	90,852.65	35,151.04
Pleasant Valley.....	1913	75	32	15.67	.....	15.67
Rhinebeck.....	1913	.....	36	.....	.....	64.68
Schenectady.....	1910	12,512	2,346	11,167.00	.....	.....
West Tisbury.....	1911	56	37	172.42	.....	172.42
West Winfield.....	1905	.....	33	133.70	7.98	125.72
Whitestone.....	1898	.....	296	2,522.50	2,222.28	4,016.67
Winfield.....	.....	.....	10	498.56	.....	498.56
Woodhaven.....	.....	.....	1	14.43	.....	14.43
New Jersey:						
Atlantic City.....	1895	8,230	1,500	134,381.48	101,250.36	33,131.12
Nutley.....	1909	1,202	.....	3,312.44	.....	.....
North Bergen.....	1912	323	150	264.57	264.57	.....
Passaic.....	1913	9,570	2,497	491.13	.61	490.52
Trenton.....	{ 1908 } 1913	15,025	846	3,326.85	.....	.....
Pennsylvania:						
Ashbourne.....	1892	.....	48	210.63	.....	.....
Aspinwall.....	1893	350	250	11,054.58	7,633.12	3,421.46
Beaver Falls.....	1909	1,914	267	2,281.14	951.47	1,329.67
Bird in Hand.....	1908	61	17	378.38	220.79	157.59
Bridgeport.....	1907	437	156	5,025.34	2,219.02	2,806.32
Carnegie.....	1904	750	350	8,912.84	6,270.37	2,642.47
Chester.....	1889	5,280	2,500	598,931.04	552,651.04	44,280.00
Coaldale.....	1912	7,042	783	3,485.90	912.20	2,573.70
Collingdale.....	1912	300	83	400.00	85.00	315.00
Conshohocken.....	1888	821	573	.....	.....	4,546.86
Duryea.....	1912	1,700	100	.....	.....	.....
Ephrata.....	1903	683	146	.....	.....	2,695.50
Evergreen.....	1908	120	19	314.21	118.66	195.55
Edgehill.....	1892	.....	16	48.03	.....	.....
Glenside.....	1892	.....	65	279.34	.....	.....
Grove City.....	.....	900	200	256.12	56.12	2,000.00
Gulf.....	1908	54	19	239.06	17.16	221.90
Hellertown.....	1890	.....	162	972.74	.....	.....
Homestead.....	1904	7,800	900	10,259.26	5,941.20	4,318.06
Kennett Square.....	1909	520	125	355.87	208.28	149.59
Kittanning.....	1902	700	350	19,386.36	11,945.94	7,440.42
La Mott.....	1892	.....	66	600.01	.....	.....

¹ \$168,624.40 has been deposited and withdrawn in the last 20 years.

School savings banks in the United States—Continued.

Name of city or school.	Year.	Pupils on reg- ister.	Number of depos- itors.	Amount deposited.	Amount with- drawn.	Amount on deposit.
<i>North Atlantic Division—Continued.</i>						
<i>Pennsylvania—Continued.</i>						
Landenberg.....	1895	68	43	\$2,150.00	\$1,080.00	\$107.00
Lansdale.....	1909	.....	201	6,922.55	.....	3,197.64
Lansford.....	1912	1,200	602	3,010.00	451.50	2,558.50
Lewisville.....	1907	150	25	600.10	485.41	114.69
Merion Station.....	1908	33	7	492.67	111.85	380.82
Millvale.....	1904	1,100	500	14,264.35	10,715.70	3,548.65
Monongahela.....	1900	1,600	600	2,500.00	2,000.00	5,000.00
Norristown.....	1890	4,124	1,800	230,289.70	190,293.91	28,160.18
North Wales.....	1898	.....	.....	383.16	.....	.....
Philadelphia.....	1903	211,809	1,518	1,585.06	.....	.....
Philadelphia—						
Hallowell School.....			383	.....	.....	391.12
Forten School.....			321	.....	.....	326.38
Durham School (colored).....			764	.....	.....	836.56
Wilmot School.....	1903	150	75	51.00	11.00	400.00
David Landreth School.....	1913	1,200	386	102.00	16.00	86.00
Pittsburgh.....	1898	60,000	30,000	638,548.77	499,582.76	138,966.01
Port Allegany.....	1909	560	194	801.20	291.91	510.00
Pottstown.....	1890	2,500	709	137,519.00	127,519.00	10,000.00
Rankin.....	1893	750	500	3,590.75	2,591.97	998.78
Reynoldsville.....	1900	500	150	3,639.85	2,218.74	1,421.11
Ridley Park.....	1905	300	90	215.95	15.95	200.00
Roberts.....	1908	36	10	395.91	31.59	364.32
Royersford.....	1909	590	296	2,451.76	3,171.95	4,242.34
Shoemaker.....	1892	.....	97	327.04	.....	.....
Swedeland.....	1908	139	49	2,235.87	757.49	467.38
Toughkenamon.....	1895	75	52	1,250.00	620.00	630.00
Uniontown.....	1911	3,200	1,570	.....	.....	12,508.77
Wayne.....	1909	273	159	289.56	275.91	160.00
West Chester.....	1890	1,672	766	46,573.74	34,971.61	11,602.13
West Conshohocken.....	1906	256	103	1,336.49	1,942.08	394.41
Wicklow.....	1905	400	200	3,092.06	2,414.66	1,277.40
Williamsport.....	1890	5,598	1,515	312,259.59	2,763.25	35,934.13
Willow Grove (Abington Township).....	1914	.....	248	.....	.....	232.46
Wyncote.....	1892	.....	38	486.16	.....	.....
<i>North Central Division.</i>						
<i>Ohio:</i>						
Cincinnati.....	1912	41,229	650	1,744.75	.....	.....
Columbus.....	1902	18,130	4,289	57,314.84	.....	.....
Dalton.....	1912	.....	.....	32.74	.....	32.74
Hartwell.....	1908	76	39	42.76	.....	42.76
Lima.....	1911	5,000	1,500	2,500.00	128.00	2,372.00
St. Marys.....	1911	1,021	325	2,755.45	905.12	1,820.35
Toledo.....	1912	25,158	10,018	252,413.82	182,784.36	69,629.46
Wellsville.....	1912	1,500	372	2,058.68	216.72	1,841.00
<i>Indiana:</i>						
East Chicago.....	1911	2,246	1,144	10,351.63	6,694.12	3,657.51
Fort Wayne.....	1912	400	.....	1,181.52	149.38	1,032.14
Goshen.....	1913	1,519	28	58.06	.90	57.15
New Albany.....	1913	3,020	205	227.10	.....	.....
South Bend.....	1912	6,000	1,847	15,003.33	13,564.30	1,439.03
<i>Illinois:</i>						
Joliet.....	1911	5,692	1,800	13,721.94	6,252.49	7,469.45
Kankakee.....	1907	2,490	1,183	27,064.76	.....	.....
Moline.....	1904	4,600	1,000	.....	.....	6,849.57
Quincy.....	1907	4,000	2,830	2,847.38	368.51	2,478.87
Rochelle.....	1911	575	155	896.98	218.84	678.14
Rock Island.....	1911	3,461	1,529	14,877.95	8,037.47	11,840.48
<i>Michigan:</i>						
Adrian.....	1900	1,416	768	24,563.22	19,057.26	5,505.96
Albion.....	1901	1,300	482	17,538.36	11,765.43	5,772.93
Ann Arbor.....	1907	1,740	707	2,056.76	.....	.....
Grand Rapids.....	1894	17,203	6,195	75,600.00	10,600.00	65,000.00
Houghton.....	1911	1,320	567	2,339.02	792.39	1,546.63
Ionia.....	1910	1,070	700	1,201.85	.....	.....
Kalamazoo.....	1910	5,023	364	7,913.17	.....	.....
North Branch.....	1907	152	41	608.25	158.41	499.84
Owosso.....	1901	1,500	800	.....	.....	6,000.00
Port Huron.....	1909	2,790	775	7,275.25	2,509.61	4,765.64
St. Joseph.....	1908	925	377	5,726.09	4,025.13	1,700.86
<i>Wisconsin:</i>						
La Crosse.....	1909	4,000	1,552	17,617.50	7,526.66	10,090.84
Superior.....	1907	3,990	1,350	6,796.38	.....	.....
<i>Minnesota:</i>						
Duluth.....	1912	13,714	6,069	32,626.83	2,984.49	29,642.34
Hastings.....	1914	.....	239	1,010.69	.....	979.50
Hibbing.....	1910	2,500	500	1,800.00	.....	.....
Minneapolis.....	1912	39,871	18,731	48,219.87	17,712.58	30,507.29
St. Paul.....	1896	15,511	4,080	6,460.40	4,796.82	.....

School savings banks in the United States—Continued.

Name of city or school.	Year.	Pupils on register.	Number of depositors.	Amount deposited.	Amount withdrawn.	Amount on deposit.
<i>North Central Division—Continued.</i>						
Iowa:						
Burlington.....	1907	1,750	500	\$1,034.00	\$966.00	\$3,491.15
Cedar Rapids.....	.....	6,562	1,856	7,677.22	1,723.08	5,954.14
Des Moines.....	1901	15,956	.....	100,079.41	66,137.56	33,941.63
Ida Grove.....	1913	200	74	178.35	120.85	57.50
Waterloo (east).....	1911	2,869	836	1,587.60	255.00	.....
Waterloo (west).....	1912	2,300	800	2,324.00	.....	2,324.00
Missouri:						
Kansas City.....	1900	3,900	1,200	220,613.52	197,303.20	51,810.32
Marsfield.....	1913	457	300	112.27	15.23	97.04
North Dakota:						
Armenia.....	1912	70	18	39.28	7.35	31.93
Grand Forks.....	1913	2,500	511	1,130.68	195.17	935.51
South Dakota:						
Sioux Falls.....	1912	2,747	.....	2,193.23	2,193.23	.....
Nebraska:						
Lincoln.....	1911	8,784	1,250	7,062.58	.....	7,062.58
<i>South Atlantic Division.</i>						
Delaware:						
Edgemoor.....	1898	50	16	533.64	3,882.13	1,651.51
Hockessin.....	1913	62	20	68.86	.35	68.51
Middletown.....	1907	120	80	1,696.00	696.00	1,000.00
New Castle.....	1907	385	221	4,725.30	3,154.60	1,570.70
Yorklyn.....	1913	89	61	339.80	9.20	339.60
Maryland:						
Catonsville (colored school).....	1910	175	50	185.00	.58	184.42
District of Columbia:						
Washington.....	1911	1,200	800	36,000.00	32,083.94	3,916.06
West Virginia:						
Morgantown.....	1914	1,896	400	253.11	.....	.....
Georgia:						
Fitzgerald.....	1912	1,504	100	150.00	135.00	15.00
<i>South Central Division.</i>						
Kentucky:						
Covington.....	1913	6,034	30	29.50	3.00	26.50
Tennessee:						
Chattanooga.....	1913	1,050	357	375.00	.....	375.00
Texas:						
Paris.....	1911	3,134	666	3,875.00	.....	3,875.00
Arkansas:						
Wynne.....	1910	485	480	1,765.00	.....	1,250.00
<i>Western Division.</i>						
Arizona:						
Bisbee.....	1913	1,877	79	371.87	8.30	363.57
Washington:						
Spokane.....	1894	18,990	3,150	240,840.54	219,658.80	21,182.74
California:						
Alameda.....	1913	3,399	.....	2,500.00	.....	.....
Berkeley.....	1911	6,700	1,205	2,550.53	374.83	2,175.70
Berryessa.....	1913	.....	15	16.42	.....	16.42
Burbank.....	1913	.....	26	23.09	.....	23.09
Hester.....	1913	.....	86	101.16	.....	101.16
Los Altos.....	1913	.....	19	13.81	.....	13.81
Los Catos.....	1913	.....	117	155.38	.....	155.38
Mount Pleasant.....	1913	.....	10	9.59	.....	9.59
Oakland.....	1909	21,696	5,494	.....	.....	90,270.59
San Francisco.....	1911	40,928	10,032	116,734.00	26,269.00	90,465.00
San Jose.....	1913	6,500	89	4,320.88	1,609.92	2,710.96
San Tomas.....	1913	.....	7	9.32	.....	9.32
Saratoga.....	1913	.....	35	134.97	.....	134.97
Watsonville.....	1909	700	167	614.29	350.00	264.29

¹ Statistics for January, 1912.

V. THE METHODS OF SCHOOL SAVINGS BANKS.

The methods used in collecting and banking the children's school savings are of two general types. One deals with the money direct. Cash received from the pupil is credited on a card arranged for the

purpose. The card is returned to the pupil as a memorandum and receipt, and the amount is also credited on the account, or roll book, by the teacher, or whoever is responsible for the money thus collected. The other is the stamp or exchange system, where the pupil is given a stamp equal in denomination to his deposit. This he fastens by means of its mucilaged back to a stamp folder. The stamp folder has divisions marked off for the reception of the stamps, and holds a certain number, generally to the amount of \$1. This is taken or sent to the cooperating bank or provident society when filled, and credit is given in a bank book for the sum the stamps represent. Numerous other plans have developed in recent years from these two general types.

The Thiry, or French system, as devised by Prof. Laurent and adapted to American use by Mr. John Henry Thiry, is described in the circular "How to Institute School Savings Banks," which is reproduced herewith in slightly abridged form:

HOW TO INSTITUTE SCHOOL SAVINGS BANKS.

The cooperation of a well-established savings bank must be secured, and the bankers, understanding the value of small savings and the thrift habit to the community and to themselves, are usually in full accord; in many instances they assume the slight cost of the blank forms required, and in others the school boards provide them.

The requisite forms are the Teacher's Roll Book, the Principal's Record (these are arranged for five years' deposits), the Monthly Deposit List, the Printed Envelope (for collections), the Scholar's Card, and the Scholar's Check. All are very inexpensive.

Having made initial preparation and set a day for collecting the first savings of the scholars, their parents and the public should be fully informed. This can be done personally by the teachers and friends of the system in private schools or country districts. In cities and towns it is wise to issue a circular addressed to the patrons of the school, stating facts of the proposed innovation and its advantages, soliciting their assistance. The circular should also state that it is not the desire of the promoters of the system that the children should become pensioners on the parents' bounty, but that they should be stimulated to industry and deposit the product of their own labor or self-denial; that the pennies are to be planted in a bank as the seed of future fortune and good habits, instead of, as is often the case, in a candy or cigarette shop, where they can produce only an extravagance of taste, which ripens into nothingness, intemperance, and poverty; that the influence of their child while building up his own stability by practical method, will help those weaker than himself by example; that no tendency to penuriousness is fostered—it is he who hath that can honestly give; that school deposits are voluntary on the part of the pupil, but the advantages of the opportunity are offered to all, and general cooperation earnestly solicited.

On the morning of the collection, which is properly Monday, the roll is called by the teacher; the child responds, "Yes, 5 cents" (or whatever his amount may be), or simply takes the money to the teacher without reply. She marks the amount on a school savings bank card opposite the proper date, filling out the card in the child's name, places the sum also on the roll book to his credit, and gives the card into the child's keeping. The card is always in possession of the pupil as memorandum and receipt. If the child has no deposit, he simply says, "Present." The administration of the school savings bank system, after the first morning, occupies not more than 15 minutes per week. When the teacher has completed the roll call, the money is placed in an envelope, marked with the amount, sealed and conveyed to the principal, who acts as temporary treasurer, if the school is graded.

The first collection is deposited in the name of the teacher or principal, who receives in return a bank book in which is recorded the amount deposited by all the teachers, as "general school fund."

A deposit list, copied from the teacher's roll book, must be sent monthly to the bank in order that the accounts of the scholars may be individualized.

When a child has deposited \$1, he is given a bank book, and becomes, through the school, a regular patron of the savings bank. When his deposit reaches \$3 or \$5 (as the bank may elect), it draws interest at 3 or more per cent.

The pupils are allowed to take their bank books home for a day or two at the close of every month.

The child may deposit or withdraw directly from the bank during vacation, the withdrawal requiring the signature of parent or guardian.

The scholar's card, patterned after that in most successful use in France and Belgium, is a small folded card. The card is kept by the child in an envelope of the proper size.

REGULATIONS.

Deposits will be received every *Monday only*, at the morning session, by the teachers of each school. The amount will be delivered to the Principal, who will deposit in the

.....
Savings Bank, in the name of each depositor.

One cent or upward can be received by the teacher. When a pupil has a deposit of one dollar or more a bank book will be given, free of charge, from the bank.

Deposits of three dollars and over will bear interest at per cent per annum.

The bank books of the pupils are in charge of the Principal or teacher while they attend school.

When the pupils leave school, and also during vacation, their books will be given to them. The check for the withdrawal of money must be signed by the pupil, and also by the Principal, teacher, or parent. During the summer va-

cation deposits may be made and money withdrawn from the bank direct, the cashier acting during that time for the teacher. Should the applicant be unknown to the cashier, he must be identified before receiving the money.

Copyright to J. H. THIRY, Long Island City, 1886.

Privilege to use this card is allowed by Mrs. Sara Louisa Oberholtzer.

Philadelphia, Pa., 1913.

SCHOOL SAVINGS BANK

—OF—

U. S. A.

Account with

Teacher.

Depositors are requested to keep this card clean, remembering that cleanliness is next to godliness.

"Take care of the pennies and the dollars will take care of themselves."

"The masses know how to care better than they know how to save."

"Good principles and good habits are in themselves a fortune."

"The habit of saving is an essential part of a true practical education."

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DATE OF DEPOSIT.	AMOUNT. \$ cts.	DATE OF DEPOSIT.	AMOUNT. \$ cts.	DATE OF DEPOSIT.	AMOUNT. \$ cts.	DATE OF DEPOSIT.	AMOUNT. \$ cts.
1912		1912		1913		1913	
September 2		December 2		March 3		June 2	
September 9		December 9		March 10		June 9	
September 16		December 16		March 17		June 16	
September 23		December 23		March 24		June 23	
September 30		December 30		March 31		June 30	
October 7		1913 January 6		April 7		July 7	
October 14		January 13		April 14		July 14	
October 21		January 20		April 21		July 21	
October 28		January 27		April 28		July 28	
November 4		February 3		May 5		August 4	
November 11		February 10		May 12		August 11	
November 18		February 17		May 19		August 18	
November 25		February 24		May 26		August 25	

The pages of the Teacher's Roll Book, which is arranged for five years' deposits, are headed thus:

By pupils of.....School.

.....*Teacher.*

[illegible]

SCHOOL SAVINGS BANKS.

The following is a fac-simile of the envelope in which the collection of each teacher is placed and sent to the principal sealed, and in turn by him to the bank cooperating:

SCHOOL SAVINGS DEPOSITS

Room No. \$

..... School

..... Teacher.

Below is the form of the monthly deposit list, on which the figures as copied from the Teacher's Roll Book are sent to the bank at the close of each month that the pupils' individual deposits may be credited on their bank books. One deposit list is used for the school year that the names need not be rewritten, and it can be seen at a glance what each child's deposit is.

Deposited in.....to the credit of the
following pupils of.....School.....
.....Teacher.

[illegible]

The following is the printed form of check used by the scholar for the withdrawal of any portion of his money:

THE PASS BOOK MUST BE PRESENTED WITH THE CHECK.	
<p>.....191 &.....</p> <p><i>Pay</i>.....<i>his parents or guardians</i></p> <p>.....<i>Dollars</i></p> <p><i>and charge to account of Book No</i>.....</p> <p>.....<i>Principal.</i> <i>Signature.</i></p>	

The plan as described above is still in use in many cities. In Pittsburgh, Pa., the plan has been slightly changed. It was introduced there by the officers of the Pittsburgh Bank for Savings in a few school buildings in 1898. The number of schools participating increased yearly, until in 1913 the system was in operation in 94 school buildings and there were more than 30,000 school children depositors. The aggregate amount of the children's deposits since the system was instituted in 1898 were, up to September, 1913, \$638,548.77.

A letter from the treasurer of the Pittsburgh Bank for Savings, dated February, 1914, says, "We have started the system in 12 new school buildings this year." He writes furthermore, in answer to a query:

We did operate strictly on Mr. Thiry's plan, but as the work assumed such magnitude we felt it necessary to change the method of collecting; instead of the deposits being taken up by the teachers on Monday mornings, according to the original method, our collectors visit each room in all the buildings where the system is in operation once each week, so that we take collections somewhere every school day. We use the original scholar's card that the child may have it always as a receipt and to take home to his parents.

In this city the bank furnished all the supplies and now collects all the savings, wholly relieving the teachers. The only objection that could arise to this plan is that possibly the teachers have less opportunity to impress the value of thrift as an educational and developing feature than when in closer touch with the growing fortune builders. It should be said that the amount of the Pittsburgh school savings has every year been phenomenally good.

In Spokane, Wash., where the school savings banks system has been in successful operation since 1894, the original card system has been adapted by the Trust Company to what we would term the Spokane direct system. Mr. Rutter, the bank officer in charge of the work, gives this description of it:

In practical operation each of the school children is treated as an individual depositor, with a private bank book and a separate account in the bank ledger, as if he were an adult. Each week the teacher of each room receives the deposit brought forward by the pupils. The teachers enter them in the children's books, and at the end of each week, on a proper blank, make a report to the principal, showing the amount deposited by each pupil. The teacher keeps a carbon copy of this record and hands over the original with the corresponding sum to the principal, who, in turn, gathers together all the funds turned in by the teachers and forwards them to the bank with the blank forms filled out by the teachers. On receipt of these sums of money, the bank clerks credit the account of each pupil with the amount turned in through the teacher. The pupil's bank books of course, do not need to be brought to the bank except when the pupil desires to withdraw money from the deposits entered on the book by the teacher.

It is an exceedingly flattering commentary on the interest shown by the teachers in the savings work, that while there are scores and scores of teachers receiving the money, we have had almost no trouble whatever from carelessness on their part."

The children are allowed to withdraw funds from the bank on their own order under the banking laws of this State, permitting a minor to deposit funds in the bank and withdraw them in his own name without intervention of parent or guardian. We allow the children 4 per cent interest, which is the same as paid all depositors in our savings department.

While we do not look upon the school savings system as a profitable enterprise, since the cost of blanks and bookkeeping is very large, there is no branch of our business in which we take more pride. Looking at it from a broad and humanitarian standpoint, we believe that we are doing a wise and useful service to the country in fostering a spirit of saving among the school children.

The total amount of school savings deposited by the pupils in Spokane to March 1, 1914, was \$71,517.98.

In Berkely, Cal., the following modified plan is in force:

The children are told which day of the week will be banking day and to remember to bring their pennies, nickels, and dimes with the signature card. Children old enough fill out the regular deposit slip in duplicate, the teacher signing both, and returning one to the child, that the parents may be advised of the deposit. The teacher at the same time enters the amount on a deposit list which is made out in duplicate by means of a carbon. Subsequent deposit lists have the number of the child's account prefixed. The teacher sends to the principal one of the deposit lists, with the corresponding amount of money. The principal receipts to the teacher on her copy.

Another deposit list between the principal and the bank is kept, the principal listing the names of the teachers and the totals of their respective collections as a means of record for his remittance to the bank. The principal then sends the total deposit to the bank, and the bank upon the receipt of the deposit list opens the accounts of the individual depositors. Inexpensive pass books are made out for each depositor and sent to the schools to which they belong. Subsequent deposits are entered by the teacher directly in the pass book, and toward the close of the school year the books are delivered to the bank for balancing and entry of interest. The pass books

are returned to the school on the last day of the term and sent home with the school report card of each depositor for the parents' inspection.

The banks cooperating in this way frequently send a representative to the different school buildings on the day known as banking day—usually Monday—to receive from the principal the amount of the school savings deposited.

The withdrawals are effected by the depositor securing from the teacher a blank check, which must contain his signature, together with that of the parent and the teacher or the principal.

The checks must be presented at the bank with the pass book for payment.

This method is reported as being quite successful, and the deposits of the scholars in Berkeley since October, 1911, have totaled \$4,240.53.

The system in force in Public School No. 122, in Brooklyn, N. Y., since January, 1911, which Mr. E. G. McWilliam, secretary of the American Bankers' Association, calls "A simplified system" in the pamphlet printed and distributed by the savings-bank section of that association, is an arrangement whereby the banking accounts are in charge of the pupils under the direction of teachers, who act as treasurers.

The following details are from a typewritten statement given to the public.

The bank is open for deposits and withdrawals on Monday, Wednesday, and Friday mornings from 8.30 to 9 o'clock.

Deposits of 5 cents or multiples thereof are received. When an account reaches \$5, the amount is withdrawn from the school bank and deposited with a regular savings bank to the credit of the pupil who saved it. No interest is paid by the school bank.

A pupil opening an account fills out a signature card in duplicate. One of these cards is filed numerically and the other alphabetically. The pupil is also required to make out a deposit slip and is given a pass card.

The school bank retains a duplicate pass card, and whenever a deposit or withdrawal is made both cards are punched at the same time. After the cards are punched the deposit slip is passed to a pupil who records the transaction in a day book, and then to another student who posts it upon a ledger card. The same procedure is used in case of withdrawals, except that a check is used in place of a deposit slip. At the end of the day's business, balances on the ledger cards and duplicate pass cards, upon which transactions have occurred, are compared and must agree. A notice of withdrawal is required on all drafts, and a parent's consent upon all withdrawals larger than 25 cents.

The money of the school bank is deposited with a regular savings bank in the name of the school, subject to the withdrawal by the teacher in charge of the school bank. The bills for printing and stationery used by the school bank are paid for out of the proceeds of the school athletic association and a school newspaper. Whatever interest the school bank earns is turned over to the school fund.

The teacher in charge of the school banking keeps an account in which is recorded for each school bank day the total deposits, total drafts, and amount deposited in the regular savings bank cooperating.

Eight boys from 12 to 15 years of age are detailed to attend to this school banking work under a teacher for the boys; and in the girls' department the same number of girls, under the care of a lady teacher, attend to the banking accounts of the girls.

This plan relieves the bank, the school directors, and the school officials generally from responsibility, placing it on the scholars and the two teachers who have the work, accounts, and cash in charge.

The receipts of school savings of Public School No. 122, Brooklyn, N. Y., up to February, 1914, have been \$4,599.20.

In some schools a miniature banking plan has been established; the older boys act as bank officers under the supervision of the school principal, taking the deposits of the pupils in banking form, crediting them on the pupil's card, and transmitting the money to a regular bank where a bank book is issued to the pupil when he has accumulated \$2. In the Henry Barnard School, in Hartford, Conn., this method was used to relieve the teachers and give the boys practice in banking methods.

The system in Public School 77, Borough of Queens, N. Y., is as follows: The banking is conducted by a teacher assisted by a dozen or more clerks, who are members of the graduating class. They are variously assigned by this teacher to bookkeeping, filing, verification of signatures, filling out deposit slips for small children, new accounts, day books, etc., the whole plan being conducted as nearly like a regular savings institution as possible. The banking is done each morning from 8.15 to 9 o'clock, with no time taken from regular class work. Deposits may be made every day, and withdrawals are limited to once a week. The children-clerks rotate through all the positions of the bank except that of treasurer, which is always held by the teacher, the entire operation usually consuming from 5 to 6 weeks. When they have finished the rotation they are gradually replaced by other members of the graduating class, who rotate in the same manner. The system is so arranged that each term every member of the graduating class fills each one of the bank positions, thereby acquiring a thorough insight into business methods.

In a few places, where schools are near a dime or other savings bank that accepts small deposits, the principal or teacher takes the boys and girls, who are willing to deposit and open bank accounts, to the bank once a week to make their own deposits, thus practically teaching them the bank habit. In Portland, Me., the writer saw a school principal thus marshal quite a long line of boys and girls to bank one noon hour to make their deposits. Inquiry revealed the fact that several of the pupils already had from \$25 to \$40 to their credit, though the plan had been in force only a few months.

In San Jose and Los Gatos, Cal., the card system is in use, and deposits as low as 1 cent are received. When a scholar's deposit reaches \$1 a regular bank book is given him by the bank and an interest of 4 per cent allowed. Interest is credited on the depositor's account the last days of June and December.

The Dime Nailer.—The Dime Nailer is one of a number of banker's devices for encouraging the saving of small amounts of money. It is a metal affair about 3 inches long and has compartments for 20 dimes. When the nailer is taken to the bank with the compartments filled, an account of \$2 is opened, and the nailer is returned for re-filling with dimes. Occasionally this device is used in schools, as in Asbury Park, N. J.

Mr. Shepherd, superintendent of the Asbury Park public schools, says:

It is acceptable, inasmuch as it puts no financial responsibility on the teacher and involves no bookkeeping other than reporting to the principal by the teachers the names and addresses of the children who take the dime nailer with the purpose of opening an account with the bank and the reporting of the same by the principal to the bank. The bank issues to the principals of each school the number of dime nailers he may wish. About 700 of these dime nailers were sent by the Asbury Park Trust Co. to the schools to be distributed among the scholars in October, 1913. The treasurer of the Asbury Park Trust Co. wrote on February 27, 1914: "Of these, 200 have been returned to the bank and accounts opened. Some were broken by the children; a great many more are still in their hands awaiting a time when they will have dimes to fill them. We think this savings device is very good, but must confess it is rather expensive."

In Duluth, Minn., the First National Bank, with the consent of the school authorities, operates a direct system. The bank employs two young women who devote all their time to the school savings work. They go to the schools once each week on a day called school banking day; are assigned a desk in the principal's office or some other convenient room and the pupils come to the collector, one room or grade at a time, to make their deposits. The teachers have nothing to do with the handling of the money and have no work in connection with it.

When installing this system in a school, cards for the signature of the depositor and his parent or guardian are distributed in the school a day or two before the collector from the bank makes her first call, that they may be returned to the file at the time the scholar makes his first deposit. These signature cards are kept at the school. Deposits of 1 cent and upward are received. When deposits less than \$1 are made the child is given a card showing the amount deposited, and when the amount reaches \$1 it is transferred to a regular savings or bank book which is delivered to the pupil together with a signature card to obtain the proper signatures for the bank file.

When deposits are made, the pupil's name and the amount is entered on the deposit sheet, from which the ledger is posted. A small ledger is kept for each school in which only amounts less than \$1 are posted.

In making withdrawals on the school card or the bank book, the receipt must be signed by the parent or guardian as well as by the depositor.

The school savings system was instituted in Duluth in 1912, and the deposits of 6,100 school children to February 1, 1914, were \$33,920.42.

The Woman's Provident Association, of Des Moines, Iowa, is doing a work worthy of mention. A number of Des Moines women endeavored to interest the school board in establishing school savings banks in their city. Failing to obtain the board's help, they organized the Des Moines Penny Provident Association to collect and care for the school savings. This was in 1901. The total amount of money deposited by the scholars since that time is \$95,500. The officers of the Penny Provident Association are all women and take no remuneration for their services. They use the card system, but issue bright-colored stamps for the kindergarten children.

In Wynne, Ark., where the system was taken up in 1910 in the high school, the superintendent, Mr. H. A. Woodward, says:

Our plan not only includes saving, but the pupil directors elect officers who manage the funds. Up to the present (March 3, 1914) they have earned an average of 14 per cent clear profit per annum on their capital stock of \$250. The stockholders receive a dividend of 6 per cent first, then share equally the balance of the profits with the depositors. They now have a surplus of \$100. Each share is \$5.

These are simply a few of the variations of the school savings bank methods. They are examples of a general desire on the part of our people to inculcate thrift and encourage small savings. There have been many other divergent plans for collecting and housing the children's deposits used for a short time, some of which are now in operation in different parts of the country, but those cited are sufficiently typical.

THE STAMP SAVINGS SYSTEM.

The chief advantage of the stamp savings system is that it relieves the school authorities of the bookkeeping. The stamps that represent money are issued by some bank willing to help with the scheme of getting the children to save their pennies. Stamps are generally made in different colors, according to their denominations. Some banks issue only 1-cent school saving stamps; others nothing less than 5 and the multiples thereof, while some offer a greater variety of denominations.

Much money has been saved by school children through the stamp saving system, especially in some of our large cities, where thrift-teaching has no especial educational direction. The stamps have more attraction for the younger children than for those in the higher grades.

The bankers deposit the stamps with the teachers in the schools who are willing to receive them and be responsible for their sale to the pupils, and the teachers turn the money received for them to the bank weekly. The child's account is opened with the bank when his card folder is filled with stamps and represents \$1. Then a new folder is supplied and the operation repeated.

According to Mr. Delos Fall, who published a pamphlet on "Thrift-Teaching in the Public Schools" in 1903, the stamp system was first used in the United States in the public schools of Grand Rapids, Mich., in 1894. It was soon afterwards adopted in the schools of Kankakee and Owosso, where it has long been in successful use. The Associated Charities of Buffalo, N. Y.; South Bend, Ind.; and St. Paul, Minn., adopted this system about 1896 and administer it with good effect. The Penny Provident operates in this way and has a very extended circuit. The stamp system is also used in Minneapolis, originally under the Associated Charities, but later under the direction of the Farmers and Mechanics Bank, which improved and enlarged its usefulness.

Every public school in San Francisco, Cal., now has school savings banks collections. The stamp system was introduced by the Bank of Italy, with the consent of the board of education in 1911. This bank furnishes 1-cent stamps. The pupils bring their deposits to the teacher; she gives them the number of 1-cent stamps their money represents, and they paste them on the cards, which are arranged to hold 50 stamps. A representative of the bank calls at the school the same day for the money thus collected. A bank account is opened with the child when he has filled two folders, aggregating \$1. After an account is thus opened, the pupil can add at any time 50 cents to it in coin, or a filled folder representing that amount. There were 11,500 pupils who had opened bank accounts up to February, 1914.

In Nutley, N. J., the stamp system is used. The women interested go into the schools one afternoon a week and sell the stamps to the children to encourage them in saving. When a child has stamps amounting to \$1 on his folder, he receives a check for \$1 in his own name in exchange for the filled folder. He endorses the check and takes it to the bank, with or without assistance, and opens his own bank account. When he has filled another folder the transaction is repeated. The aim is to give him real business training in the bank habit, as well as instruction in healthful industry and economy. Banking experience has recently been made a special feature in connection with the prevocational school for boys.

Grand Rapids, Mich., has a very successful stamp-saving system, originated in 1894. Mr. E. R. Weitz, of the Grand Rapids Savings Bank, writes:

The bank employs a collector who visits each school at stated periods of the week and sells the stamps to the various principals. The principals, in turn, sell the stamps

to the pupils. These stamps the pupils take and paste into folders which the bank has printed for this purpose. Each folder holds 50 stamps. These folders, when filled, can be brought to the bank, and we issue a school savings book to the depositor for the amount. This system is very popular with the parents, and the interest manifested by the schools is a source of much gratification to us. We have now on deposit in the school savings department upward of \$75,000, and nearly 8,000 of the school children have accounts with us.

Reproduced herewith is the face of the stamp savings card used by a Boston, Massachusetts, savings society in the collection of school savings.

A penny	saved is	a penny	gained.	\$	
<hr/>					
A wise	man saves	for the	future.		
<hr/>					
You can't	get rich by	spending	money.		
<hr/>					
Everybody	should	have a bank	account.		
<hr/>					
A house	is built at a	one time.	brick		
<hr/>					
Start	a new pass	card or book.	get a		

THE NEW YORK CITY REPORT.

The several plans of school savings have had considerable attention in New York City. The report of a special committee adopted on May 13, 1914, provides as follows:¹

RULES AND REGULATIONS FOR ORGANIZING AND CONDUCTING SCHOOL SAVINGS BANKS IN THE PUBLIC SCHOOLS OF THE CITY OF NEW YORK.

1. School savings banks shall be established wherever practicable in such elementary, high and other schools as the board of superintendents may authorize upon application of the principals.

2. School savings banks shall be established and conducted in accordance with the provisions of section 160 of the banking law of the State of New York, and the printed forms to be used shall be in accordance with those specified in "Plan No. 1" or "Plan No. 2" hereinafter described.

3. School savings banks shall be open for business not less than one day each week, and banking business shall be transacted before 9 a. m., between 12 and 1 p. m., or

¹ Board of Education, City of New York, Document No. 6, 1914, School Savings Banks.

after 3 p. m. Withdrawals may be made not oftener than once each week. Deposits of one or more cents shall be received, as the individual school banks shall provide.

4. All moneys received for deposit shall be deposited in a State savings bank which is willing to accept the accounts; and such deposits shall be made in trust by the principal or "bank manager" for the pupils and in the name of the school, so that in case of a change in principal or bank manager a change in stationery shall not be involved. Money shall be withdrawn from the school account in the depository bank on a check signed by the principal and a designated treasurer, secretary, or bank manager, in their representative capacity. The principal shall designate the treasurer, secretary, or bank manager except as otherwise hereinafter provided.

5. Withdrawals from the "school account" in a State savings bank shall be restricted to an amount not exceeding \$200 at any time. No withdrawals from the school account in a State savings bank shall be permitted for the purpose of meeting any expense connected with the school bank, or for any purpose other than the payment of depositors: *Provided, however*, That accrued interest on the school account may be withdrawn for the purpose of school bank expenses.

6. A report covering the school savings bank business for each term shall be made by the principal and bank manager to the board of education, with proper vouchers for receipts and expenditures of bank interest money, within five days after the close of each term, in a form hereinafter prescribed.

7. No interest shall be paid to pupil depositors by the school savings bank.

8. When a pupil has to his credit in the school savings bank an amount for which the State savings bank will open an interest-bearing account (\$1 or \$5, as the case may be), a separate account shall be opened for him in the State savings bank, and his savings shall be duly transferred thereto. From a pupil having a separate State savings bank account, collections in school shall continue as before until an additional sum of \$1 or \$5, as the case may be, is credited to him in the school bank. Then such amount shall be transferred to his individual account in the depository State savings bank.

9. Withdrawals from pupils' individual accounts in State savings banks shall be made in accordance with the rules of such banks. The person in charge of the school savings bank shall make inquiry from time to time regarding withdrawals from pupils' individual accounts in State savings banks, and try to prevent unnecessary or unreasonable withdrawals from such accounts.

10. When a pupil is transferred or discharged from the school, his school bank account shall be closed by paying to him any balance standing to his credit, and taking a receipt signed by the pupil and his parent or guardian.

11. In opening an account in the school savings bank the pupil depositor shall fill out and sign a deposit card.

12. Savings bank officers and a board of directors, composed of teachers and pupils, may be chosen in any high school having a school savings bank.

PLAN No. 1.—*Blanks authorized for use, as authorized and described in Board of Education "Document No. 9—1912."*

1. Pupils' bank card.
2. Teacher's deposit sheet.
3. Envelope.
4. Principal's deposit sheet or school sheet.
5. Deposit slips and school bank book.
6. Pupils' deposit slip.
7. Withdrawal and transfer checks (on bank).
8. Transfer slip.
9. Teacher's ledger (book or sheet).
10. Principal's ledger (book or sheet).

PLAN No. 2.—Blanks authorized for use.

1. Cards in duplicate for opening an account.
2. Deposit slip.
3. Pass card (in duplicate and colors, one card for pupil, one for the school bank.
On these, amounts of deposits up to \$5 are punched.)
4. Pupils' ledger account card (showing deposits, drafts and balance with dates).
5. Form of check, for withdrawals.
6. Parent's consent to withdrawals.
7. Notice of withdrawal.
8. Pass-book receipt.
9. Receipt on closing account.
10. Bank manager's daily or weekly financial report to principal.
11. Notice to savings bank.
12. A punch for cutting amount of deposits on cards.

Form for term reports.

Term report of the School Savings Bank of Public School Borough	
of	New York City.
Balance on hand, 191	\$
Amount of deposits received to, 191	\$
Amount of interest credited by depository bank	\$
<hr/>	
Total receipts	\$
Amounts of payments to depositors to, 191	\$
<hr/>	
Deduct	\$
Balance on hand, 191	\$
Balance as shown by passbook in depository bank, 191	\$
.	
.	
Amount due depositors	\$
.	
.	
Number of depositors, 191 . . . . .	. . . . .
Number of accounts opened, 191, to, 191 . . . . .	. . . . .
<hr/>	
Total depositors . . . . .	. . . . .
Number of accounts closed, 191, to, 191 . . . . .	. . . . .
<hr/>	
Deduct . . . . .	. . . . .
Number of open accounts, 191 . . . . .	. . . . .
Average amount to credit of each account . . . . .	. . . . .
Total number of deposits during term . . . . .	. . . . .
Total number of withdrawals during term . . . . .	. . . . .
Number of accounts transferred to savings accounts in various banks . . . . .	. . . . .
Amount of such accounts . . . . .	. . . . .
Number of enrolled pupils in school at date . . . . .	. . . . .
Vouchers for interest received and disbursements therefrom attached hereto

.
Treasurer School Savings Bank.

.
Principal.

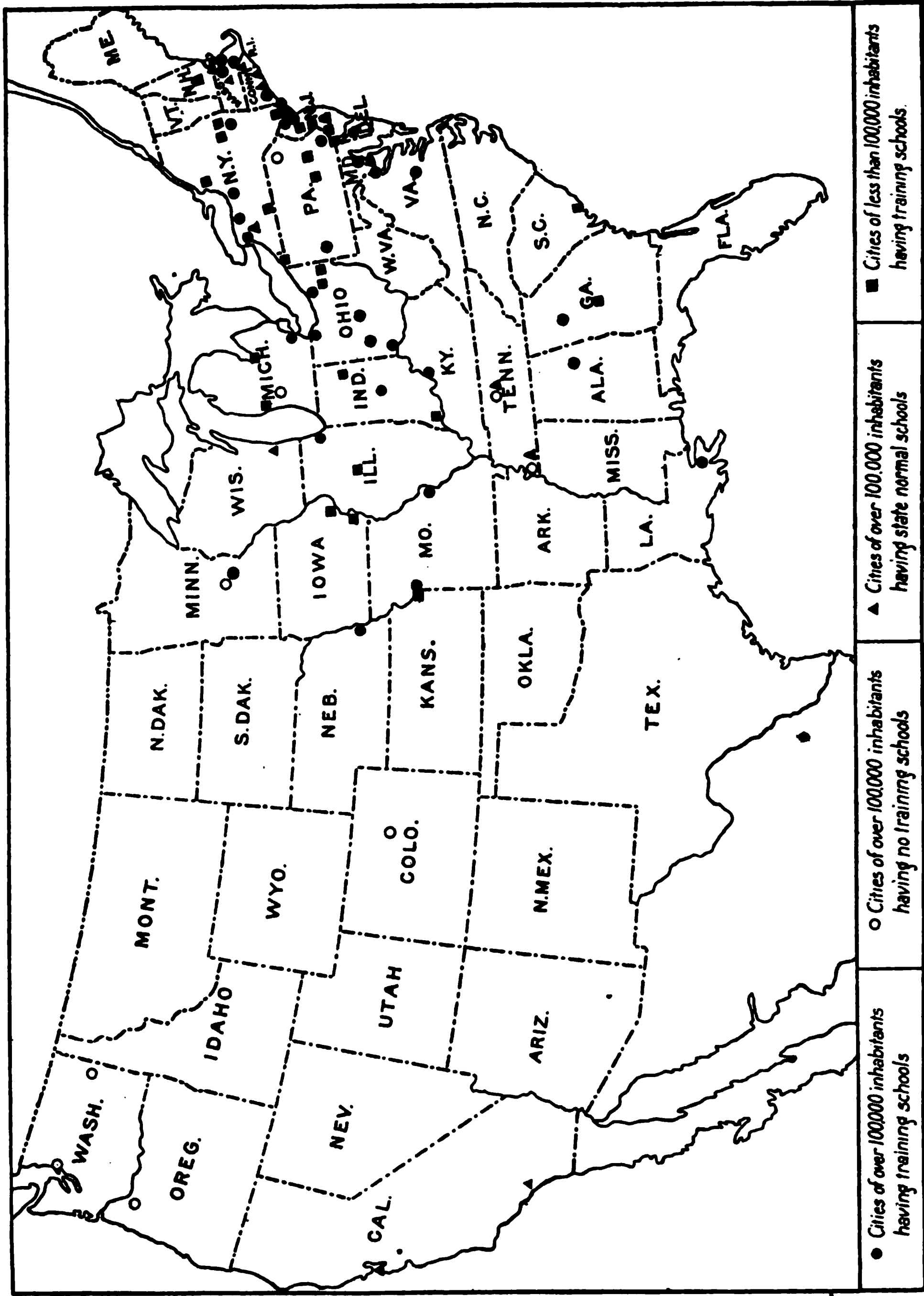
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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, October 31, 1914.

SIR: For city schools, as for village and country schools, though perhaps to a less degree for the former than for the latter, the character, education, professional knowledge, and skill of individual teachers must be counted as the most important factors for efficiency and success. The agencies and methods through and by which teachers for city schools are prepared are second in importance only to the agencies and methods for the preparation of teachers for rural and village schools. Although all the States maintain normal schools or schools of education in connection with State colleges for the preparation of teachers, and although most of the graduates of these find places as teachers in city schools, still all cities but one with a population of 300,000 or more, and four-fifths of those having a population of more than 100,000, maintain normal or training schools as a part of their public-school system. The annual enrollment in these schools is more than 7,000 and the number of graduates each year about 3,000. Most of the new teachers in the schools of these cities are taken from the ranks of these graduates. The character of these city normal or training schools therefore determines to a very large extent the character of the schools in which the children of the cities are taught. Recognizing the need of a comprehensive account of the organization, management, and work of the city normal or training schools, I gladly accepted the offer of Dr. Frank A. Manny, principal of the Baltimore City Training School and a special collaborator in the Bureau of Education, to make a careful study of them and to prepare a report of the results obtained. This report is transmitted herewith for publication as a bulletin of the Bureau of Education for distribution among school officers in the larger cities, among principals of State and city normal schools, and professors and students of education.

Respectfully submitted.

P. P. CLAXTON,
Commissioner.

The SECRETARY OF THE INTERIOR.

PREFATORY NOTE.

In organizing the material of this report it has been difficult to determine what method of treatment would lead to the better service. While there are many topics that are obscure, there are still sufficient data to justify certain positions which seem to the writer to need emphasis at the present time. The chief function of what has been brought together seems, however, to afford a basis for further study and for the formulation of specific programs in particular localities.

There are usually some errors in work done under the most favorable conditions, and when a study is made in the marginal moments of one's daily work it is hardly to be hoped that even much care has prevented many slips and falls. Several hundred people have contributed material to this report, representing mainly the principals of the city training schools and the superintendents of the city schools. Enough cases of conflicting reports have been cleared up to indicate that there are probably others that have escaped detection.

Grateful acknowledgment is due to those who have contributed material to this report; the compiler owes much to their cooperation and suggestions.

FRANK A. MANNY.

CITY TRAINING SCHOOLS FOR TEACHERS.

PRESENT PROBLEMS.

In the training of teachers there is need of the mass work which, on the whole, is done well by many schools in the country. Too little attention, however, is given in many cases to the need of selecting individuals who will make good use of further opportunities for growth and training. The problem is social, and the selecting and directing care is needed on the part of those who have a margin of time for this aspect of the work. We can not get along without machine-made work, but best results require as well careful hand-work to set standards and to keep and develop high art levels. In many respects the city offers superior opportunities for developing this machinery and for providing for that selection which is so essential to progress.

The city training school has grown up under difficult conditions, and there has been little opportunity for those most seriously concerned in it to do more than attempt to meet the very urgent demands made upon it.¹ At a conference of principals of training schools and colleges held at St. Louis in February, 1912, the secretary of the group agreed to prepare a report upon the "Present status of city training schools." This was presented in a preliminary form at the conference held in Philadelphia in February, 1913. The United States Bureau of Education gave its support to the inquiry, and the present report is the outcome of what has been done.

The following list of problems has been selected from the many that have arisen in connection with the report for consideration by the committee in charge of the national conference of training-school teachers:

NEEDS AND POSSIBILITIES TO BE STUDIED AND REPORTED UPON.

1. Publication of a list by the United States Bureau of Education of standard-grade normal and training schools, following the precedent established in the case of universities and colleges. This list to be used as a basis for accrediting

¹ "The agencies in the control of this board for the training of teachers were not studied by the inquiry committee of the board of estimate. I recommend an inquiry into our facilities for training teachers at public expense, the number and arrangement of studies in the training schools, the relation of these studies to the work done by the graduates, the time allotment of the various studies, and the relative value of the subjects. Is there subject matter outside the course of more vital benefit to the students than that now in the course? Has the service of the normal and city colleges been fully utilized by this board in securing service for the general system of public high and elementary schools? These and allied questions should be taken up with intent to improve the method of securing high-class teachers for the schools." (Rep. of Pres. Bd. of Ed. N. Y. City, Jan. 28, 1914.)

certificates in various States and cities, also for articulation of courses with degree-giving institutions. (See the "accredited" list of secondary schools issued in 1913 by the Bureau of Education.¹)

2. Agreement between authorities of city, State, and the United States Bureau of Education as to standard forms of reports for normal and training schools, including rules for determining proportion of salaries of special-subject teachers, teachers of practice, etc.; also standard means of determining per capita cost; the reporting of libraries so as to distinguish textbooks and classroom sets from reference books, etc.

3. Separate listing in State and National reports of State, county, and city training schools and classes connected with high schools.

4. Encouragement of printed announcements and curricula of city training schools for purposes of interchange and mutual criticism.

5. Formation of circuits of training schools of similar scope, to members of which each school belonging will send printed and mimeographed syllabi, outlines, blanks, forms, etc.

6. Statement of the function of a training-school corps in a city system (p. 10).

7. Actual requirements of practice teaching (pp. 60-66).

8. The relation of the high-school course to the preparation of teachers (pp. 17-23).

9. The best means of passing from the training school into the city service (pp. 66-69).

10. Substituting in the city schools (pp. 69-73).

11. A series of tests similar in purpose to the Courtis arithmetic and English tests, the Hillegas composition scale, and the Thorndike and Ayres penmanship scales, in order to secure material for a comparative report upon the qualifications of students entering upon training work. Possibly this could be extended to include a comparison of the students with others in the senior classes of the various high schools.

12. The possibilities of advanced work for selected students in higher institutions, as is done in England.

13. The interchange of training-school students as recommended by Supt. Phillips, of Birmingham, Ala.

14. The establishment of funds similar to the Gregg Fund in Indianapolis (p. 81), to be used as incentives for strong students to enter upon teaching.

15. The interchange among training and normal schools of members of the faculties for a semester's residence.

16. The encouragement of the publication in annual reports of the titles, books, editings, researches, etc., by members of the corps, as has been done for some years in Boston.

17. More adequate means of securing and circulating material upon the training of teachers in America and elsewhere. There is need of an educational journal whose major concern is the training of teachers.

18. A comparison of the cost and results of small training schools and of the maintenance of scholarships in larger city and State schools (pp. 145-149).

19. The relationship of the State to the training of teachers for service in cities (pp. 94-100).

20. The special problems involved in the training of teachers for grades VII and VIII and their relations to the training of secondary school teachers.

21. The relationship of the training of teachers to that of other municipal employees (pp. 89-94).

¹ Education bulletin, 1913, No. 29.

To the State has fallen the chief care of public higher education. The only section of schooling beyond the secondary period which any considerable number of municipalities has entered is that of the training of teachers. In so far as this has been done, it has been due largely to the necessities of the case. Teachers must be provided in large numbers for city schools, and any influences which lead to higher standards in qualifications are felt first in cities. Naturally, under the circumstances, the development of these schools has been opportunistic. They have had a more definite program than that required of State normal schools, and, what has been of even greater influence, they have been more subject to the immediate reaction of the communities they serve.

The supply of teachers for a city system depends upon those who have had training and experience elsewhere and those in the city who wish to enter the service. In days of a spoils system school positions made excellent pawns in playing the game. This fact, among others, has had its part in tending to hold these positions as local possessions from which the foreign teacher is to be excluded as far as possible.

When one reads the naive note made in one report, "We like our system; it makes such excellent teachers," and in another, that membership is restricted "simply by accommodations," he realizes to some extent certain of the difficulties in the situations which are not in the consciousness of the principals involved.

On the other hand, when, amid the common complaint that there are not enough candidates of the quality desired for teaching, Cincinnati is able to secure its elementary teachers from the upper end of the scale of university graduates, it is apparent that there are means of meeting difficulties which have not yet become apparent to the educational authorities of many large cities. This city has a lower salary maximum than that of several other cities, yet it can require a course of twice the length given elsewhere.

Material is not available upon the religious problems in the city training schools. It is possible that, where they appear, many of them are not so much questions of religion as of the results of segregation. Thus, in a large city a speaker who was invited to address the teachers of the secondary schools which sent students to the training school found that half of his audience were representatives of teaching orders of a particular church. Inquiry showed that a very large part of the members of the training school had never been members of the public-school system until they entered upon the two years' course of training. Apart from any question of religion, this situation must offer many difficulties in the school and in the later service.

Standard works on education do not give much space to the city training school. Dutton and Snedden, in their *Administration of public education*, give two lines. Dr. Chancellor gives some space in two of his books. He sees clearly the dangers of the system, which he states to be:

First, it not merely promotes; it is the instrumentality of inbreeding.

Second, it means low salaries for the teachers, because it insures a large and therefore cheap supply of young teachers.

FUNCTION OF THE CITY TRAINING SCHOOL.

In the twelfth yearbook of the National Society for the Study of Education, Dr. Bobbitt, of the University of Chicago, discusses "Scientific management applied to city schools." In this is shown clearly the important function of a city training school when it shall become a progressive indicator and worker out of the real needs of the system.

This appears to be best accomplished in those cities where the directive faculty of the school are at the same time portions of the general supervisory force of the city. Most progressive cities show this in the practice-teaching work, and some are coming to employ it on the side of the instruction.

This means conscious planning and not mere growth coming largely through necessities and chance. It is suggestive of much that has not been done and needs to be done.

The following quotation from Dr. Bobbitt's report gives his general position:

PRELIMINARY TRAINING OF TEACHERS.

PRINCIPLE V.—*The management must train its workers previous to service in the measure demanded by its standard qualifications, or it must set up entrance requirements of so specific and detailed a nature as to enforce upon training institutions the output of a supply of workers possessing the desirable qualifications in the degree necessary for entrance into service.*

Although much neglected in actual practice, this principle appears to indicate one of the major supervisory functions. Since the function is so completely neglected at times as to indicate no recognition, the statement will perhaps require some justification. The first justification lies in the fact that the nature of the work that is performed by the supervisory staff is in large measure determined by the entrance qualifications which new workers bring with them when they enter the service. If these entering teachers have been trained in low degree, or if they have been trained to improper methods of work, then the supervisory members must expend a large excess of labor in giving training to young teachers which ought to have been accomplished in the preliminary course. If, however, the younger teachers have been trained in a superior manner, then the amount of supervisory energy required for each teacher is very much less, and it can be expended on a much higher

professional plane and look toward very much higher attainment. Any form of labor that will reduce the work of the supervisory staff to one-half in amount and at the same time place it upon a higher plane is a legitimate portion of the work of the supervisory members. Unless the function is performed by one or other of several methods, the organization can not hope to attain anything like maximum efficiency.

Looking at the matter from another viewpoint, it is clear that the responsibility stated in the principle rests upon the management of city school systems because of the relation existing between the city organization and the teachers' training institutions. These institutions are preparing a product for use in the city school systems. It is for the school system that uses the product to say what the nature of the product is to be in all necessary details which is turned out for their use by the training institutions that are engaged in ministering to their necessities.

This relation is perfectly clear in the case of training institutions within our large cities which are integral portions of the city school system and in which the major portion of the entering teachers are trained. If our principle states the relationship correctly, the city training school can not be an autonomous institution, with the general nature of the work left to the principal of the school and the details of it left to the heads of departments. It appears to be clearly the function of the management of the city school system, the supervisory staff, to say in minute detail what shall be the qualifications of the output of the training school; and this means the determination of the elements that enter into the training curriculum. This appears to be best accomplished in those cities where the directive faculty of the school are at the same time portions of the general supervisory organization of the city. Most progressive cities show this in the practice-teaching work, and some are coming to employ it on the side of the instruction.

The performance of this function is not quite so simple in the case of smaller cities, villages, and rural districts that can not have their own training institutions. At the present time they are more or less at the mercy of relatively autonomous, and therefore—so far as the cities receiving their product are concerned—relatively irresponsible institutions. These institutions can turn out what they will, regardless of the wishes of the cities that are to receive their product; and the supervisors must take what they can get. It may be what they need, and it may fall considerably or even greatly below it. The cities themselves are relatively powerless to prescribe the product that is to be turned out for their use by the training institutions.

In practically all cities this is the situation obtaining in secondary education. Training institutions turn out what they will; and city school systems, in employing high-school teachers, feel that they must take the product whether it is of the kind they need or not. In many quarters they are coming to be very firmly of the opinion that their particular needs were but little considered in the shaping of the product that was to go to them.

CLASSES OF INSTITUTIONS.

The various city institutions for the training of teachers may be grouped as follows:

(1) Degree-giving institutions, including the College for Teachers of the University of Cincinnati, New York City College, and Hunter College.

(2) Schools providing practical training for graduates of colleges and normal schools—Cambridge and Chelsea.

(3) Institutions using the name college, but not conferring degrees. These are the Harris Teachers College, of St. Louis, and the Teachers College of the Chicago Normal School, both of which furnish advanced work beyond the two years' course in summer school and winter extension classes.

(4) City training or normal schools, with two-year courses.

(5) Similar institutions, with courses of one year and one and a half year's length.

(6) Training classes in connection with the high school or the superintendent's office.

The names given to the city institutions studied show a preference for the word "training," which appears 38 times to 29 uses of the word "normal." In six cases both words are used. One city (Cincinnati) has a "university," one (Philadelphia) a "school of pedagogy," two (Chicago and St. Louis) have "colleges," and one (New York City) has both training schools and colleges.

There are a few schools in the smaller cities from which no reports have been available, but there are not enough of these materially to alter the inferences that can be drawn from the following statements. The larger the city, the more necessity upon it for providing training within its borders. For our present purpose, State schools within these cities should be counted with the city schools. It will be seen that Minneapolis is the only city with a population of more than 300,000 which makes no provision for training teachers. In cities above 150,000 four out of five have schools, and the same proportion holds for cities above 100,000. For smaller cities account has not been taken of State schools, but the 59 cities from 50,000 to 100,000 have but 17 city schools; the 117 between 25,000 and 50,000 have but 6, and the 56 between 20,000 and 25,000 have but 3. In the 232 cities with population between 20,000 and 100,000 there are seven fewer city training schools than are found in the 50 cities above 100,000.

CITIES HAVING MORE THAN ONE TRAINING SCHOOL.

Seven of the larger cities have more than one city institution for training teachers. New York has three institutions of the same kind. In Philadelphia one school is for women and another is for men. In St. Louis, Baltimore, Washington, Louisville, and Richmond, a second school is maintained for the training of colored teachers.

In Chicago there is a feeling in some localities that the opening of a second school in another part of the city would bring the possibility of training within the reach of many young women who now find the distance a deciding factor against entering the city service.

Classification of cities.

	Population.	Number of cities.	Training schools.
1	500,000+	¹ 8	All have city training schools.
2	300,000+	² 18	14 city schools, 3 State; Minneapolis neither.
3	150,000+	² 32	23 city schools, 5 State; 4 neither.
4	100,000+	² 50	33 city schools, 7 State; 10 neither.
5	50,000+	109	50 city schools.
6	25,000+	226	56 city schools.
7	20,000+	282	59 city schools.

¹ New York has three schools; Philadelphia one for each sex; St. Louis and Baltimore each two schools, one for colored students.

² Washington, Louisville, and Richmond have separate schools for colored students.

In 41 schools in 33 cities having more than 100,000 inhabitants, there are enrolled over 7,200 pupils. The proportion of graduates to membership in schools reporting is 5 to 12; so that it is safe to estimate 3,000 graduates. These cities report that they require from 3,600 to 4,100 teachers each year, so that the training schools can furnish nearly three-fourths of the required number.

In 26 cities of less than 100,000 inhabitants there are 700 students enrolled; allowing 300 graduates annually, the schools can fill a little over one-half of the required 500 to 600 new teachers.

Of the 7,200 students in the 33 larger cities, one-half are in the three largest cities, which have about half of the population of the group; one-fourth are in the next 5 cities, ranging above 500,000, and having less than one-fifth of the population; the remaining fourth are in 25 cities below 500,000, having one-third of the population.

In the cities above 100,000 population there are 17 schools having less than 100 students, 9 having less than 50, and 3 with less than 25.

In the 26 cities below 100,000, none have an enrollment over 100; all but one have less than 75; 21 have less than 50; 12 less than 25, and 5 less than 20.

Six of the large cities having State schools¹ have an enrollment in these schools of nearly 2,500 students, in a city population of about 1,600,000; so that to have the same number coming from the State schools into these city systems would take nearly half the product of the schools.

The distribution of training schools by cities is shown in the accompanying list in the map on page 4. Twenty-three States and the District of Columbia have 33 cities over 100,000, and 26 cities under 100,000, which have training schools. Of these, only five States have territory beyond the Mississippi River. From New Hampshire to Georgia on the Atlantic coast the only States having no city training schools are Rhode Island and North Carolina.

¹ San Francisco, Milwaukee, Los Angeles, Providence, Worcester, and Lowell. Baltimore is excluded from this comparison, as it has both State and city schools.

Mr. Ford's report states that in 1880 there were 21 city normal schools and in 1911, 80.

The Bureau of Education report for 1889 records 58 schools, with 538 students. Supt. Foos finds that:

More than 80 cities with a population of 25,000, census of 1900, have specific instruction for the training of teachers by superintendents' or teachers' classes, classes in high schools, departments in high schools, or separate normal training schools. No doubt a number of cities with less than 25,000 inhabitants also do normal work; so that it is reasonable to presume that about 100 towns and cities provide normal instruction for persons who desire to teach.

His list shows superintendents' classes, 15; high-school normal classes, 19; normal training schools, 62.

Mr. Ford's list shows the following schools from which neither data nor notice of discontinuation has been secured for this report, although efforts have been made to secure this information: Altoona, Auburn (Me.), Augusta (Ga.), Bloomfield (N. J.), Bloomington (Ill.), Cohoes, Dubuque, Galesburg, Gloucester, Hoboken, Jamestown, Joplin, Lewiston, Newburyport, Portland (Me.), Springfield (Ill.), Quincy (Ill.), Stoughton. The State departments of West Virginia and Georgia report schools at Wheeling and Augusta, but no reports have been secured. The same is true of Cohoes and Jamestown in New York State.

CLOSING OF CITY TRAINING SCHOOLS.

Some schools have had a periodic existence, closing when the supply of teachers was large and reopening when there was a scarcity. It is not profitable to go into this matter to any great extent, but a few notes may be of historical interest. The reasons given for closing Auburn's school in 1912 was the proximity of three State schools. The superintendent at Scranton writes concerning the abolishment in 1909 of the school in that city:

To qualify under the new school code, our training graduates were compelled to take a State examination and receive State certificates.

The St. Louis school was discontinued during 1896-97.

Dr. Balliet makes the following statement concerning the city with which he was connected:

The city training school at Springfield was opened in the autumn of 1888 and closed in June, 1900. It was established because a number of the Massachusetts State normal schools were at that time not giving effective, practical training. It was abolished because those State normal schools had improved and were very efficient.

Cincinnati opened a training school in September, 1868, and closed it in February, 1901.

The following letter from the superintendent in a manufacturing city shows not only the vicissitudes in the life of training schools, but also the limitations in its city school system which they may be used to perpetuate:

Two years ago my board voted to abolish the city training school. At the last election, fall of 1911, the personnel of the board was changed; it was voted to reconsider the former vote with the result noted above. It is not yet the time to abolish the school in this city. I have between 80 and 90 young teachers who are substituting and assisting in rooms containing over 50 pupils each, because we do not have sufficient buildings and as a result not rooms enough. Consequently these assistants must wait for four or five years before they can be appointed to rooms of their own.

You readily see how handicapped I would be in securing teachers to assist in my schools when other cities could give them rooms. In using the graduates of my own school, this difficulty is obviated.

ENTRANCE INTO TRAINING SCHOOLS.

There has been some progress made in recent years in determining the suitability of candidates for entering telephone, street railway, and some other lines of service. Little has been done in selecting students for teacher training, beyond some very external examinations. Some of the university departments of education and psychology now are considering studies which may lead to more effective means of sifting the applicants. Present salaries keep down the number of candidates, but it is possible that a more definite standard would help to raise the scale of salaries.

In cities in which the number of candidates is much larger than the number of students desired, it is not difficult to make restrictions by means of which students of low scholarship are excluded. There is, however, a tradition that very frequently students who are low in academic standing make good teachers. While there is at times a tendency to be dogmatic in this matter by those who can point to few cases to prove the point, there has not as yet been a sufficiently complete study of the question to justify those who oppose it in making positive statements. A thorough analysis was made in one city of the membership of several classes after entering service by the teachers who had trained them in practice and in theory. The groups were divided into quarters, according to high-school standing, and it was found (1) there were occasional difficult cases in the three higher quarters, but (2) almost all of the cases which had required extra amounts of time and of exertion on the part of teachers came from the fourth quarter; (3) in two classes the loss of the entire fourth quarter would have caused but one clear

loss to the city. This last exception was that of a student of much power who was sufficiently well known to have been taken account of. In other classes the representatives of the lowest quarter who made valuable teachers were in most cases those whose low records were due to special health conditions or to other known causes which adequate records would report as a basis for special decision. A young woman in ill health, under wise direction, may be able to take such care of herself as to make a better record in later years than another naturally stronger, but unadvised, because she had no apparent needs.

Careful experimentation shows that many of the students who seem to promise failure as teachers are capable of a high grade of service if they are given an additional half year or full year of preparation.

The following table indicates the accessible data with reference to the proportion of students according to a division into quarters on the basis of high-school records; also the means used to determine entrance into the training schools:

Students in the four quarters—Entrance to training schools.

City training schools.	Divisions according to high-school records.				Training-school entrance requirements.	Percentage required on high-school work.
	First quarter.	Second quarter.	Third quarter.	Fourth quarter.		
Albany.....	7	13	19	58	Recommendation of high-school principal.	
Baltimore (white).....	27	26	27	20		
Birmingham.....					do.	
Boston.....					Competitive examination.	
Cincinnati.....	75 per cent best half college graduates.					
Cleveland.....						85
Columbus.....	41	30	25	5		75
Concord.....						
Dayton.....	25	25	25	25		
Detroit.....					Competitive examination.	
Elizabeth.....	44	17	20	19		
Erie.....	10	90				
Harrisburg.....	75	25			Examination if necessary.	
Indianapolis.....					Competitive examination.	80
Jersey City.....	25	25	25	25		
Louisville.....						Very good.
New Orleans.....	31	29	23	17		
Macon.....					Examination.	
Omaha.....					Selected by superintendent.	
Philadelphia.....					High-school standing.	
Pittsburgh.....					Competitive examination.	80
Reading.....	50	25	25	Few.		
Schenectady.....	Largely from second quarter.					
St. Louis.....	Upper two-thirds for 4 years.				Entrance examination from lower third.	
St. Paul.....						
Toledo.....						80
Washington (white).....						80
Watertown.....	33	33	34			
Yonkers.....						70

Frequently special courses are arranged in the larger high schools for prospective training-school students. In St. Louis¹ 9 per cent of the students were in a course—

preparatory to the Teachers College * * * arranged to give special attention to instruction in penmanship, drawing, and such subjects having immediate professional bearing. It has always been thought that this crowded out of this course some of the important cultural elements of other courses. Furthermore, experience has demonstrated that those choosing this course did not supply the numbers to meet our demand for teachers, and graduates in good standing of any other course have consequently been admitted to the Teachers College. (St. Louis Report, 1912.)

In St. Louis students whose records place them in the lowest third of the high-school graduating class may, by taking an examination, become eligible for admission in case there is not a sufficient number of candidates having the higher grades. The subjects for this examination are: English composition and literature; algebra, to quadratics; plane geometry; general history; two of the following sciences—physics, chemistry, botany, physiology, physiography, zoology; and one of the following languages—Latin, Greek, French, or Spanish. An average of 75 per cent is required, with not less than 50 per cent in any subject.

In Boston, a special course is provided. The plan is given herewith:

Candidates who have completed a four years' course in a Boston high school, as outlined below, with diploma, will be examined on the second Friday and the preceding Thursday in June. The amount of work to have been thus completed is indicated by the number of points placed opposite each subject.

COURSE OF STUDY.

First Year.

Subjects.	Points.
English I.....	5
Latin I, or German I, or French I.....	4
Mathematics I (Algebra).....	4
History I (ancient or English).....	3
Drawing I.....	3
Physical training I.....	2
	<hr/>
	21

¹ From 1904-5 to 1909-10 the range of percentages of girls in the graduating classes of the high school entering the teachers' college was from 26 to 48.

In Indianapolis, a competitive examination for all candidates is held in August and January, in arithmetic; oral reading; English grammar, literature, and composition; general history, including United States; botany; vocal music; and drawing.

Second year.

	Points.
English II-----	4
Latin II, or German II, or French II-----	4
Mathematics II (geometry)-----	4
Hygiene-----	1
History II (medæval or mediæval and modern European)-----	3
Drawing II-----	3
Physical training II-----	2
	<hr/> 21

Third year.

English III-----	3
Latin I or III, or German I or III, or French I or III-----	4
Mathematics III (arithmetic, one-half year; algebra and geometry, one-half year)-----	5
Music I-----	2
Physics-----	4
Physical training III-----	2
	<hr/> 20

Fourth year.

English IV-----	3
Latin II or IV, or German II or IV, or French II or IV-----	4
Music II-----	2
United States history under the Constitution-----	3
Chemistry-----	4
Physical training IV-----	2
	<hr/> 18

NOTE 1.—The four years of foreign language study required may be devoted to a single language, but must not include more than two languages.

NOTE 2.—Time is left in the fourth year to make up a failure or to add an additional study.

Each candidate must present certificates from the head master of the high school attended showing that she has satisfactorily completed the subjects of the course in the high school, and has earned not less than the number of points set opposite each subject. Candidates will be excused from examination in each subject of the first three years in which they have passed with a grade of A or B, but will be examined in those subjects in which the grade is C.

All candidates will be examined in the subjects of the fourth year of the course.

GRADUATES OF OTHER HIGH SCHOOLS.

Candidates who are not graduates of a Boston high school must have completed an equivalent four years' course elsewhere, with diploma. They will be examined on the second Friday and the preceding Thursday in June in each of the subjects above specified. Certificates showing that the subjects of the first three years of the course have been completed with a grade of A or B, in high schools approved by the board of superintendents, may be accepted in place of examinations in these subjects.

Applications for such certificates must be sent to the board of superintendents not later than June 1.

All candidates will be examined in the subjects of the fourth year of the course.

GRADUATES OF COLLEGES AND NORMAL SCHOOLS.

Women graduates of a university, college, or State normal school, approved by the board of superintendents, and men graduates of a university or college so approved, may be admitted to the senior class without examination. Each candidate must present to the board of superintendents certificates of graduation from a university, college, or normal school, of good health, and of good moral character.

In New York City the following course is required:

	Recitation periods. ¹
English literature, rhetoric and composition, grammar-----	494
Algebra -----	190
Plane geometry-----	190
History, ancient or modern, I-----	114
History, English or modern, II-----	114
American history and civics-----	152
Drawing -----	228
Botany, zoology, and physiology-----	190
Physics -----	190
Latin or German or French-----	380
Music -----	152

The English must have been continuous through four years. Vocal music, one lesson each week, and drawing, one lesson each week, for two years; two lessons each week during the other two years. A high-school standing of 65 is required, but records prior to January, 1911, of 60 for girls and 70 for boys are accepted. Physics and physiography are required for training-school entrance, and special advanced courses in science, mathematics, and foreign language. Students from outside schools with approved courses must take entrance examinations in fourth-year English, a third or fourth year foreign language, and drawing.

An interesting obligation is a certificate signed by the principal of the high school—

to the effect that the candidate is habitually reliable, cheerful, obedient, and truthful; that he exhibits habits of cleanliness and neatness; that his habitual posture in sitting, in standing, and in walking is correct and dignified; that he speaks the English language without foreign accent, and with clear and correct enunciation; and that his habitual use of language is that which befits a teacher.

In Philadelphia candidates from either the general or the college preparatory course are admitted. In the report of that city for 1910 the following statement was made in connection with new standards for admission to the service:

In fact, the requirements for obtaining certificates * * * were so much lower than those for graduation from the normal school that it was quite possible for a student of the high school to leave that institution long before graduation, and, by a comparatively short course in the reading of professional

¹ Not less than 45 minutes.

literature, prepare himself to pass the examination and thus secure a position as teacher several years before her classmates who entered the normal school and secured certificates upon completion of the course in the latter institution.

In the St. Paul report for the same year it is stated that five years ago graduates of the high school were eligible as teachers, three years ago one year of training was required, and one year ago graduation from a normal school or college or university was made necessary. A basis for increased requirements is shown in a comparison of average salaries for all teachers and principals: 1904, \$641; 1906, \$761; 1911, \$910.

Entrance examinations are required in New York, Boston, Indianapolis, Pittsburgh, St. Louis, Fall River, and Richmond. In Baltimore, Philadelphia, Muskegon, Wilmington, Louisville, and Schenectady high-school records determine entrance.

In many cities the recommendation of the members of the high-school corps or of the principal is required. Admission in some cases is in the hands of the principal of the training school, but at times it lies with the superintendent of schools, and at least when students come from the outside schools there are instances when action is taken by committees of the board.

The effect of entrance examinations and increased requirements is often immediately evident. Thus in New York City in 1910-11 there were admitted to the training school 1,049 students;¹ in 1911-12, 862 students were admitted.

According to Supt. Maxwell's report:

This decrease is due not to any falling off in the number of applicants, for the number of women applying was greater than ever before, but to raising the standard of scholarship required for admission (from 60 to 65 per cent).

Detroit selects 35 or 40 students from about 100 candidates. St. Paul receives 30 out of about 50 applicants. Several other cities set definite numerical limits, as Birmingham, 30; Buffalo, 40; Chicago, 250; Cleveland, 100; Concord, 6; Columbus, 30; Elmira, 50; Kansas City, 40; Newark, 40; Pittsburgh, 60 per cent of new teachers required.

The following schools report no restrictions on numbers: Atlanta, Albany, Cambridge, Dayton, Fall River, Jersey City, Louisville, New Orleans, New York, Paterson, Philadelphia (male), Richmond, Rochester, Syracuse, Washington.

Brooklyn in the fall of 1912 gave tests of the 8B grammar grade to all junior students, after they had become acquainted with the school.

¹ *New York City Training School, September, 1910, and February, 1911.*

	From New York.	From Brooklyn.	From Jamaica.	Total.
Number of applicants.....	705	923	179	1,807
Number admitted.....	369	557	123	1,049
Number refused admission.....	336	366	56	758

In English a majority of the students were not successful, and voluntary after-school classes were provided. Similar tests were given twice later in the semester, and all but five cleared the last trial.

Some method of grading students on the fundamentals of common school subjects, using means having the objects of the Hillegas Composition Scale and the Courtis Arithmetic tests, would be of great service in training schools. A comparative study of this portion of the high-school product in various cities would be of value.

PLEDGE.

There seems to be less inclination at the present time than formerly to require of students entering the training schools any pledge with reference to teaching a definite number of years. In New York State a statement is made by the student that it is his intention to prepare himself for teaching. The state department comments upon this:

Our experience has been that where pledges of this kind (to teach a certain number of years) have been exacted of students who enter training institutions, the making of such pledges has but little effect.

In Rochester this form is used:

We, the subscribers, hereby declare that our object in asking admission to the training school is to prepare ourselves for teaching, and that it is our purpose to engage in teaching in the public schools of the State of New York at the completion of such preparation.

In St. Louis¹ and Washington a promise to teach for two years is required. Some form of pledge is also required in Chelsea, Concord, Elmira, Schenectady, Troy, and Watertown.

¹ -----Name. St. Louis, Mo.,-----19--

Harris Teachers' College.

STUDENT'S AGREEMENT.

In consideration of the professional training afforded me by the Board of Education at the Harris Teachers College, I hereby agree to teach at least two years in the Public Schools of St. Louis after graduating from that institution if I shall be appointed and continued in the service of the Board of Education. I declare that I am entering this work in good faith, fully expecting to complete the course.

I have carefully considered and understand the following regulations concerning the admission to, and the continuance in, the work as a student, and I agree to be governed by their conditions:

(1) Continuance in the College or apprentice schools shall be conditioned on the student's maintaining a standard of scholarship, industry, and general deportment which shall be required in those schools and which shall be approved by the Superintendent of Instruction.

(2) This standard requires—

(a) That the first year of the course be satisfactorily completed in not more than three terms.

(b) That not more than one term be allowed to complete the apprentice work if it has required three terms to complete the first year of the prescribed course, and that no compensation be given during a second term of apprenticeship made necessary by an unsatisfactory standing during a first term of apprenticeship.

-----Name.

ENTERING AGE.

There is much variation in the age of entrance. New Jersey and Indiana require candidates to be 18 before they can begin teaching. This would make the age at which training could begin 16, which is the requirement in Akron, Atlanta, Albany, Camden, Cleveland, Dayton, Detroit, Elizabeth, New Orleans, Paterson, Philadelphia, Reading, Richmond, Schenectady, Toledo, and Yonkers. New York City, Columbus, and Rochester require 16½. Birmingham, Erie, Harrisburg, Kansas City (Kans. and Mo.), Macon, Muskegon, Omaha, and Wilmington require 18, and Cambridge 19.

A study of students entering several classes in the Baltimore (white) school showed that nearly all were 17, 18, and 19, in the ratio of 8-12-8.

NONRESIDENT STUDENTS.

Very few students enter training schools who hold their residence in other communities. Probably there are a number of adjustments made in order to avoid paying the tuition which is frequently charged nonresidents. In Chicago the student from outside, at the end of the course, receives a certificate, but does not receive the license granted to residents of Chicago. Tuition is usually charged students from other communities. In Baltimore the annual rate is \$42; in Newark, \$75; in Boston, \$100; in Chicago, \$150.

OUTSIDE STUDENTS.

Many cities report that they have no outside pupils. Others have a few. Elmira, Akron, Indianapolis, Cincinnati, Newark, and St. Louis have 10 per cent; New York and Albany, one-eighth; Yonkers, one-fourth; Columbus, one-third; and Schenectady, one-half.

MEDICAL EXAMINATIONS.

A large number of the cities recognize the desirability of some form of medical examination of candidates for teaching positions, but in many cases the certificate of the family physician is accepted. In Rochester the requirement is a physician's certificate "testifying that they possess the health and strength to endure the exactions of a teacher's life."

In Bridgeport the form required states:

I have this day given Miss ----- a medical examination and find her in good health, with no tendencies toward weakness or disease which should interfere with her pursuit of the course of study and practice in the City Normal School for Teachers or of the vocation of teaching.

Dr. Edson, in his report on the Bridgeport School, recommends—

A thorough physical examination of each candidate should be made by a city physician employed for the purpose. The heart, lungs, blood, urine, hearing, and sight should receive close attention by a competent medical expert.

In some cities, as Newark, the health certificate of any physician must be approved by the supervisor of medical inspection.

Chicago makes the following requirement:

All successful candidates for certificates to teach in the public schools of Chicago or to enter the Chicago Teachers' College shall pass a physical examination. This shall be held to apply to all classes of positions for which teachers' certificates are issued by the board; provided that teachers in the service of the board who hold certificates awarded upon passing a former required physical examination may be awarded other certificates for which they have passed the required academic examination without being required to pass another physical examination. A holder of a valid certificate who is not employed by the board, and who applies for appointment after the lapse of one year from the time of the awarding of the certificate, shall be required to pass a physical examination before being employed. Any teacher absent for more than a year, except a teacher on leave, shall be required to pass a physical examination before being reemployed. As a result of the physical examination each candidate shall be placed in one of two groups, as follows:

Group I includes those applicants who are physically sound or whose physical imperfections are so slight as to have no prejudicial influence on efficiency in school work. Such imperfections, if detected, shall be set forth fully in the examiner's report.

Group II includes those applicants whose physical imperfections may have prejudicial influence on efficiency in school work. Among the physical imperfections which might be or which, if sufficiently pronounced, would be prejudicial, are disorders of the excretory, respiratory, and circulatory systems; chronic tuberculosis; severe protracted dysmenorrhea or other serious pelvic diseases; deformities; chorea and other nervous disorders; defects of sight and hearing.

All applicants falling under group I shall be accepted.

All applicants falling under group II shall be rejected.

There shall be four consulting physicians—two on general medicine and two on the eye, ear, nose, and throat.

If a medical examiner is in doubt whether an applicant should be placed in group I or in group II he may call alternately for consultations one of the regular consulting physicians. The result of this consultation is final. Any applicant who has been assigned to group II by the examining physician may, on application to the superintendent of schools, have a consultation between the examining physician and one of the regularly appointed consulting physicians. The result of this examination is final.

The Baltimore record is fairly simple.

[Baltimore Teachers' Training School.]

Name, _____ Date, _____
Date of Birth, _____ Vaccination, _____ Revaccination, _____
Family History, _____

Personal History, _____
Remarks, _____

Form 8. [Reverse.] Examining Physician.

Height, _____ Weight, _____ Pulse, _____ Temperature, _____
Eyes, _____ Ears, _____ Nose, _____ Throat, _____
Mouth, _____ Neck, _____ Skin, _____ Teeth, _____
Heart, _____
Lungs, _____ Chest Expansion, _____
Alimentary Tract, _____
Reproductive System, _____
Asymmetry, _____ Head, _____ Thorax, _____

One of the fullest statements required is that of Indianapolis, which is here given :

Date of examination.....19....

STATEMENT OF PHYSICAL HISTORY AND CONDITION OF APPLICANT FOR APPOINTMENT AS TEACHER.

INDIANAPOLIS PUBLIC SCHOOLS.

(By Act of Board of School Commissioners, July 10, 1896.)

A. FULL NAME.		RESIDENCE.
RACE—WHITE OR BLACK.	MARRIED OR SINGLE.	SEX—MALE OR FEMALE.
AGE.	DATE OF BIRTH.	WHERE BORN.

I hereby agree to answer all questions correctly to the best of my knowledge, any willful deceit working as a forfeiture of my position.

.....Signature of applicant.Witness—Sup't of Schools.

APPLICANT'S STATEMENT TO MEDICAL EXAMINER.

B. NAME IN FULL.	WHITE OR BLACK.			AGE.
OCCUPATION.	WEIGHT. Lbs.	HEIGHT. Ft. In.		FIGURE.

Have you now or ever had any of the following diseases:

Apoplexy.....	Disease of heart.....	Jaundice.....	Ulcers.....
Asthma.....	Disease of liver.....	Paralysis.....	Varicose veins.....
Bronchitis.....	Piles.....	Pleurisy.....	Hemorrhage of lungs..
Cancer.....	Fistula.....	Pneumonia.....	Spinal disease.....
Tumors.....	Disease of urinary organs..	Rheumatism.....	Constant cough.....
Consumption.....	General debility.....	Hysteria.....	Yellow fever.....
Disease of brain.....	Gout.....	Neurasthenia.....	
Disease of lungs.....	Insanity.....	Scrofula.....	

Have you been vaccinated?	Are you ruptured?	If so, is a truss worn?
---------------------------	-------------------	-------------------------

Are you subject to headache, vertigo, or any nervous or muscular disease?	Do you have epilepsy or fits?	Have you a cough, expectoration, palpitation, or difficult breathing?
---	-------------------------------	---

Are you subject to dyspepsia, dysentery, or diarrhea?	Are you now under constant care of a physician?	Who is your physician?
---	---	------------------------

What was the last disease you were treated for and how long were you ill?

(Physician—) Is above history good, fair, or bad? (.....)

C. FAMILY HISTORY.	AGE IF LIVING.	CONDITION OF HEALTH.	AGE AT DEATH.	CAUSE OF DEATH.
Father.....	.....	.....	.....	.....
Mother.....	.....	.....	.....	.....
Brothers living.....	.....	.....	.....	.....
Sisters living.....	.....	.....	.....	.....

Do you now sleep or have you ever slept in the same room with one having consumption?

Did any of your grandparents, parents, brothers, or sisters ever have consumption or any pulmonary or scrofulous diseases?

Have you any kidney disease?	If so, the urine should be tested. Specific gravity..... Albumen..... Reaction..... Sugar.....
------------------------------	--

FEMALE.	Is menstruation regular or healthy? If not, state conditions and probable cause ... Menopause. (Over it or not)..... How many children have you had? Date of last confinement..... Have you been left in poor health from previous labors?
---------	---

(Physician) Are above answers good or bad? (.....)

.....
Signature of applicant.

D. REPORT OF EXAMINING PHYSICIAN.

Is respiratory murmur clear over both lungs.....	A.....
Respiration per minute.....	B.....
Are there indications of lung disease.....	C.....
Is character of heart's action uniform and regular.....	A.....
Are its sounds normal.....	B.....
Are there any indications of diseased blood vessels.....	C.....
Is the pulse regular or irregular.....	A.....
State average rate per minute.....	B.....
Are there any indications of impaired or diseased vital organs.....	.....
Hearing.....	.....
Sight.....	.....
Girth of chest { Deep expiration..... in.	Girth of abdomen,..... in.
{ Full inspiration..... in.	in.
Have you your average weight.....	.....

I have this.....day of....., 19....., examined the above person, and find that the conditions present are such that the applicant's constitution is ¹..... The application should be ².....

Signature of Medical Examiner.

Approved:.....
 Sup't. of Schools.
 Committee on Manual and Physical Training {.....

Remarks:

¹ State whether *first-class, unfavorable, or bad.* ² Fill in *accepted, rejected, or postponed indefinitely.*

No medical examination at entrance is required in Watertown, Macon, Burlington, Evansville, Schenectady, St. Paul, Charleston, Troy, Elizabeth, Erie, Rochester, and Columbus. The last four report a requirement later in the course. In Elmira the examination is recommended. In several cities the answer to the inquiry is "In case of doubt," "When necessary," etc. In Reading the regular semiannual examination given to all pupils is extended to members of the training school.

The reports available do not show that many candidates are rejected because of the results of the examinations given them. The supply of applicants is not usually sufficiently large to permit of very rigid holding to high standards. The corrective work indicated often fails of accomplishment because of the short school day and the lack of gymnasium equipment. The most common basis of operation is an examination to determine the applicant's condition, either on entering the service, or two years earlier, on entering the training school. In Baltimore the time of the first examination has been pushed down until it is now made at the beginning of the senior year in the high school, so that the student may gain whatever advantage is possible from the advice and requirements made

by the physicians employed by the school board to make the examinations. All the girls are examined by two very able women physicians, and through them special needs are referred to specialists.

In a thoroughly organized system all students would receive this care, but until this is done, it would seem to be economy to give special attention as early in their course as possible to those students who are planning to teach. A school needs for this constructive work a well-equipped gymnasium under a competent director in close relation with the ablest physicians available as examiners and advisers. In the cases studied the correlation between the rating received in the physical examination and high-school and training-school grading is not evident. In Baltimore a summary of several classes showed the proportion to be 2 very good to 12 good; 5 fair and 1 poor.

COURSES OF STUDY.

Nearly all of the students in teachers' training schools are preparing for work as elementary teachers. The only additional course found in any number of schools is that preparing for kindergarten teaching. This course is reported in Akron, Boston, Brooklyn, Chicago, Cincinnati, Detroit, Newark, New York, Omaha, Peoria, Philadelphia, Pittsburgh, Rochester, Schenectady, St. Louis, Syracuse, Trenton, Troy, and Washington. Courses in the household arts and manual training are given in Washington and Chicago. Chicago has also a deaf-oral class and one for teachers of crippled children. Brooklyn gave in 1912-13 a course for ungraded teachers. (See p. 57.) In Omaha a manual training class is permitted by the rules. In 1908-9, in Dayton, there was a special course for teachers of German. Cleveland announces a regular course for preparing teachers in that department. Washington (colored), in its postgraduate course, and the School of Pedagogy at Philadelphia (male) lay special emphasis upon training for grammar-school classes.

The course for elementary teachers varies in the several institutions, but seldom fails to include about the same range of subjects. It is difficult to attempt a quantitative comparison of the proportion of time assigned to the various subjects, because the labels in some cases are somewhat confusing and work in two schools under different names will be found to be much the same in character. The most complete announcements are published by the schools in Chicago and Cleveland. In these will be found detailed statements of their respective courses of study.

A consideration of the curriculum¹ as a social growth shows, among others, three important factors which may, for convenience, be designated as (1) that of apprenticeship, (2) the cultural, and (3) the experimental. The first of these has to do mainly with the present and the immediate demands made upon the student to prepare himself for definite duties. The cultural work represents the effort to conserve what has proved of value in the past and to assist the youth to make it a part of himself. The experimental aspect is taken here to mean the responsible reconstructing of experience, that side of life which lies open to the future and in which the individual may justly feel that he has some part, even though it be small, in planning, gathering, and selecting materials and determining methods of working. To use a homely figure, in experimental work "the dice are not loaded."

Normal school courses, and especially city training school courses, have been strongly influenced by the apparent necessities of apprenticeship. Much of the cultural material which has been used has been smuggled in by teachers of history, English, and other method subjects.

The apprenticeship basis has been the chief difficulty in securing recognition for the school with reference to its relation to higher institutions. The present discussion of vocational education ought to help in making advance in this problem. The apprenticeship needs are very real. They exist in all branches of education, but in some departments they have been more definitely placed than they have been in teaching. We need a careful investigation of minimum necessities, and on this foundation a frank recognition of the importance of apprenticeship. It is evident from a study of the courses of study given below that it is possible to do fairly good training in several quite different courses. Since this is true, there must be a number of possible eliminations and substitutions which could be made the basis for a much more valuable course than any of those commonly used.

Apprenticeship represents the important principle of early specialization, without which the individual would be unable to continue existence, but which, carried too far, leads to certain recognized evils. The complementary principle of the prolongation of the period of growth depends on the opportunities provided for cultural and experimental work. There is not room here to discuss the needs and possibilities in this curriculum of cultural materials. The elective system and many other departures in the so-called new education, with all the abuses which they have suffered, are indications of the struggle on the part of the experimental or, one may well say, the democratic

¹ See statement of Baltimore course, pp 38-48.

tendency. Apprenticeship and culture represent a necessary work, the adaptation of the individual to an existing environment. Experiment is required in order that he may learn to adapt himself to a changing environment and that he may have a share, however small, in making changes in his environment.

Education, from this standpoint, is a cooperative growth in experience, affording to the individual resources of self, society, and nature, and enabling him to participate in the progress brought about by the interaction of these factors.

In the courses printed in the following pages the material generally falls into four groups: (1) Education, including logic and psychology; (2) the common school subjects; (3) the school arts, as penmanship, music, etc.; (4) observation and practice teaching. It is very difficult to express quantitatively the proportion of time allotted to these, as there is much overlapping; but from the reports available it is perhaps safe to say that nearly an equal amount of time is given to groups 1 and 4. Somewhat less time is assigned to the school arts than to either of these groups, while the common school subjects receive from 50 to 100 per cent more time than do education or practice.

There is a great difference in the work done in the various schools under the same labels. Thus hygiene in some schools belongs almost entirely in the common school subject group. In other schools it involves a large amount of new subject matter, while in such a course as that given in Baltimore there is much of the experimental, including the hygiene of civic and social life as well as definite laboratory work in assigned responsibilities in the housekeeping of the training school.

An important phase of apprenticeship which has as yet received too little attention is in training to use graphs and other mathematical tools which render simpler and more adequate important aspects of classroom work.

The most academic of the courses given is probably that of the Philadelphia School of Pedagogy. The planning of a course for men only naturally leads to a greater emphasis upon collegiate subjects. The latest requirements of this school, however, give greater recognition to certain apprenticeship necessities than were formerly provided.

The term "psychology" covers a variety of courses, from some that are very narrowly utilitarian to others as abstract as the situations will allow. One fortunate result of one philosophical title in the training-school curriculum has been that it has been made the cover in some cases for a considerable amount of cultural and experimental training of a philosophical kind. In certain directions young people

need much of this material during the time when they are concerned with reconstructing their scheme of life, and with formulating more or less consciously a system which will serve as a relating background for the various confusions and perplexities which they meet. The French tried to meet this by crowding the cyclopedia of philosophy into the last year of the lycée. A frank recognition of this need and an effort to meet it on a common-sense basis would mark a great advance in the training school curriculum.

No attempt is made to criticize or evaluate the various courses which have been selected for publication here. It has seemed best to present them as given, in order that those who are interested may have a range of material for study and comparison.

Outlines of courses have been received from the schools in Atlanta, Columbus, Davenport, Elizabeth, Elmira, Erie, Evansville, Fort Wayne, Harrisburg, Schenectady, St. Paul, Yonkers, and Youngstown.

The most definitely standardized State course is that of New York. The outlines for New York City and Rochester will indicate the requirements of those cities based on the State standard. Further selections have been made of Boston, Bridgeport, the School of Pedagogy in Philadelphia, Baltimore, Reading, Trenton, Washington (colored), Cleveland, Toledo, Indianapolis, Chicago, St. Paul, Macon, and Birmingham.

In some cases, as Chicago and Cleveland, the detailed statement of courses is omitted, because these schools publish announcements which render the material available to those who send for it.

There seems to be a tendency to combine kindergarten and primary training. Especial mention of this arrangement is made in reports from Trenton, Rochester, and Birmingham. In St. Louis there was a surplus of kindergartners on the waiting list, and it was decided to admit no further classes into the kindergarten normal course. This has been a separate institution, but when kindergarten training is resumed it will become a department of the Teachers College.

In Cincinnati the College for Teachers cooperates with the Kindergarten Training School in preparing for positions in the city. Psychology and the history and principles of education are given by the college faculty. A home-economics course is given jointly by the Kindergarten Training School and the College for Teachers. Cooperation has also been established with the art academy in the training of art teachers. In 1911 there were 34 kindergarten graduates; 12 normal art, and 41 household art. The number of elementary graduates in the College for Teachers was 33.

NEW YORK STATE EDUCATION DEPARTMENT.

COURSE OF STUDY FOR TRAINING TEACHERS.

Minimum course.—This course is designated as a minimum to meet the requirements of the laws of 1895, chapter 1031, and at least 500 hours must be devoted to its completion.

(a) *Subjects and suggestive time allowance.*—The number of hours to be devoted to each subject shall be determined by the local school authorities. The number of hours placed opposite the several subjects is to be regarded as suggestive only, and as indicative of their relative value.

(b) *Subjects and periods of 60 minutes each:*

	Periods.
Psychology and principles of education-----	80
History of education-----	60
School management-----	20
Methods in mathematics-----	50
Methods in elementary science, nature study—plants, animals, minerals— and physiology and hygiene-----	40
Methods in reading, spelling and phonics, and literature for children-----	50
Methods in language, composition, and grammar-----	50
Methods in geography-----	30
Methods in drawing-----	30
Methods in history and civics-----	30
Physical culture, with methods-----	30
Methods in music-----	30

(c) *Observation and practice teaching.*—At least 50 hours shall be spent by each member of the training school in observation, and at least 50 hours in practice teaching.

DEPARTMENT OF EDUCATION, CITY OF NEW YORK.

COURSES OF STUDY FOR TRAINING
SCHOOLS FOR TEACHERS.
First Year—First Term.

	Periods.
Logic: Science and art of think- ing-----	4
English: Reading, spelling, phon- ics, voice training-----	4
Science: Nature study-----	5
Art: Drawing and constructive work-----	3
Penmanship and blackboard writ- ing-----	2
Sewing-----	2
Physical culture-----	2
Singing-----	2
	24

COURSES OF STUDY FOR TRAINING
SCHOOLS FOR TEACHERS—continued.
First Year—Second Term.

	Periods.
Psychology-----	5
English: Language, composition, and grammar-----	4
Mathematics: Arithmetic, elemen- tary geometry, and algebra-----	4
Geography-----	3
Art: Drawing and constructive work-----	3
Sewing-----	1
Physical culture-----	2
Singing-----	2
	24

DEPARTMENT OF EDUCATION, CITY OF NEW YORK—Continued.

COURSES OF STUDY FOR TRAINING SCHOOLS FOR TEACHERS—continued.

Second Year—First Term.	
	Periods.
Principles and history of education	5
English: Composition, teaching of literature, children's literature, story-telling	3
History and civics	4
Science: Method of teaching elementary science	2
Mathematics: Methods	2
School management	2
Art: Drawing, constructive work, blackboard sketching	2
Physical culture	2
Singing	2
	24

Second Year—Second Term.

Practice teaching as substitutes.

GENERAL DIRECTIONS.

1. The time devoted to physical training, two periods per week, may be distributed throughout the week at the discretion of the principal.
2. Not less than 60 minutes per week during the first, second, and third terms shall be devoted to the observation of work in the model school.
3. Part of the time set apart for the study of methods of teaching a branch of study may be devoted to giving lessons in that branch to a group of pupils selected from the model school.

KINDERGARTEN COURSE FOR TRAINING SCHOOLS FOR TEACHERS.¹

First Year—First Term.	
(Same as in regular course.)	
	Periods.
Logic: Science and art of thinking	4
English: Reading, spelling, phonics, voice training	4

KINDERGARTEN COURSE FOR TRAINING SCHOOLS FOR TEACHERS—continued.

	Periods.
Science: Nature study	5
Art: Drawing and constructive work	3
Penmanship and blackboard writing	2
Sewing	2
Physical culture	2
Singing	2
Observation	1
	25

First Year—Second Term.

	Periods.
Psychology and principles of education	5
English: Voice training, composition, including story-telling	3
Nature study	3
Drawing	2
Music: Songs and games	3
Mother play	1
Physical culture	2
Gifts and occupations	5
Observation	1
	25

Second Year—First Term.

	Periods.
History of education	3
Principles of education with special reference to the kindergarten	3
English: Voice training, children's literature, composition, including story-telling	3
Nature study	2
Drawing	2
Physical culture	2
Music: Songs and games	3
Gifts and occupations	3
Program: Kindergarten procedure	3
Observation	1
	25

Second Year—Second Term.

Practice teaching as substitutes.

¹ Length of course, 2 years.

BOSTON NORMAL SCHOOL.

(Figures indicate number of periods per week.)

JUNIOR YEAR.

First Term—12 weeks.

	Periods.
Oral reading (including phonics) 8 weeks; story-telling, 4 weeks_	3
Spelling -----	1
Arithmetic -----	3
Geography -----	3
Penmanship -----	1
Physiology and hygiene-----	2
Drawing and manual training---	2
Elementary science -----	1
Educational psychology-----	2
Music -----	2
Choral practice-----	1
Gymnasium work -----	2
Observation in model school-----	1
Morals and manners-----	1

Second Term—12 weeks.

	Periods.
Grammar (10 weeks); methods (2 weeks)-----	4
Arithmetic -----	3
Geography -----	3
Blackboard penmanship -----	1
Physiology and hygiene-----	2
Drawing and manual training---	2
Educational psychology -----	2
Music -----	2
Choral practice-----	1
Gymnasium work -----	2
Observation in model school-----	2
Morals and manners-----	1

Third Term—12 weeks.

	Periods.
Literature (10 weeks); meth- ods (2 weeks)-----	3
Composition -----	2
Arithmetic -----	3
Geography -----	3
Physiology and hygiene-----	2
Drawing and manual training---	2
Elementary science -----	1
Educational psychology-----	1
Music -----	2

JUNIOR YEAR—continued.

	Periods.
Choral practice-----	1
Gymnasium work-----	2
Observation in model school-----	2
Morals and manners-----	1

SENIOR YEAR.

One Term—12 weeks.

	Periods.
Literature -----	1
Composition -----	2
Constructive geometry -----	2
Geography methods -----	1
U. S. history -----	3
Theory of physical training-----	2
Drawing and manual training---	2
Elementary science -----	2
History of education-----	2
Kindergarten principles-----	2
Principles of education-----	2
Choral practice-----	1
Gymnasium work-----	2

One Term—12 weeks.

	Periods.
Methods in English-----	3
Methods in arithmetic-----	2
Methods in geography-----	1
U. S. history and methods-----	3
School hygiene-----	2
Drawing and manual training---	2
Elementary science and methods.	2
History of education-----	2
Principles of education-----	2
School administration-----	2
Choral practice-----	1
Gymnasium work-----	2

One Term—12 weeks.

Observing and teaching in public schools—4½ days per week.
Substitute and evening school service— 1 period per week (Friday after- noons).
Conferences—1 or 2 periods per week (Friday afternoons).

BRIDGEPORT COURSE OF STUDY.¹

Studies.	40-minute periods.	Hours.
English.....	200	133
Geography.....	120	80
Arithmetic.....	90	60
Principles of teaching.....	90	60
General method.....	95	64
History of education.....	45	30
Psychology.....	70	47
Nature study.....	50	34
Music.....	62	41
Drawing.....	62	41
Writing.....	62	41
Physical training.....	62	41
Common school subjects.....	1,008	672
Education and psychology.....	460	307
School arts.....	300	201
	248	164

¹ Practice teaching not included in estimate.

ROCHESTER (N. Y.) PLAN OF COURSES BY SEMESTERS.

(Number of periods per week indicated by figures.)

NORMAL.

First year.		Second year.	
First semester.	Second semester.	First semester.	Second semester.
Psychology..... 5	History of education. 4	Language method ... 3	Teaching in the grades.
History method..... 2	Reading method..... 2	Nature study..... 5	
School management... 2	Arithmetic method... 3	Geography method.. 4	
Kindergarten method.. 3	Physical training..... 3	Manual training and sewing..... 5	
Physical training..... 3	Drawing..... 5	Physical training..... 3	
Drawing..... 5	Music..... 2	Music..... 2	Music..... 1
Music..... 2	Observation..... 2	Observation..... 2	
Manual training.			

KINDERGARTEN.

Psychology..... 5	History of education.. 4	Teaching in the kindergarten and primary grades, kindergarten method.. 3	Teaching in kindergarten.
History method..... 2	Primary methods.... 2		
School management... 2	Nature study..... 4		
Kindergarten method.. 3	Kindergarten method 4		
Physical training..... 3	Physical training..... 3		
Drawing..... 3	Drawing..... 2	Music..... 1	Kindergarten method. 2 Music..... 1
Music..... 2	Music..... 2		
Manual training.	Observation..... 2		

PRIMARY AND KINDERGARTEN.

Psychology..... 5	History of education.. 4	Morning spent in teaching in kindergarten.	Morning spent in teaching grades.
History method..... 2	Reading method..... 2		
Kindergarten method.. 3	Arithmetic method... 4		
Physical training..... 3	Physical training..... 3		
Drawing..... 2	Drawing..... 2		
Music..... 2	Music..... 1	Geography..... 3 Kindergarten method 3	Language method..... 3
Manual training..... 5	Kindergarten method 4		
Penmanship..... 2	Nature study..... 4		

SCHOOL OF PEDAGOGY, PHILADELPHIA, 1911-12.

FIRST YEAR.

I. Technical Courses.

History of Education.—First or second term: Oriental, Greek, Roman, and mediæval education, and the educational movement in Europe since the Renaissance. Outlines of educational theory in the nineteenth century. Three hours.

General Pedagogy.—First or second term: Two hours.

Special Pedagogy.—Principles and methods of instruction in elementary schools: Two hours.

School Law.—First term: One hour.

School Administration.—Second term: One hour.

II. Scholastic Courses.

Required.

Psychology.—First or second term: General introductory course: Three hours.

Logic.—First or second term: Two hours.

Geography.—First term: One hour lecture. Two hours laboratory. One hour recitation.

Physiology.—Second term: One hour lecture. Two hours laboratory. One hour recitation.

Government.—First term: American Government. Second term: Municipal government. Three hours.

English Composition.—First term: A theory of English usage. Second term: Exposition and argumentation. Two hours and a conference.

Drawing.—Drawing and modeling. Two hours.

Music.—Vocal music. One hour.

Physical training.—First term: One hour. Second term: One hour.

Penmanship.—First or second term: One hour.

Electives.

Mathematics.—First term: Advanced algebra. Second term: Plane analytical geometry. Three hours.

History.—First term: English economic history. Second term: American economic history. Three hours.

English Literature.—First term: The drama before Shakespeare. Second term: Six comedies of Shakespeare. Three hours.

Optional Electives.—Senior advanced courses in Greek, Latin, German, or French. Beginners' course in Latin. Two hours. (Omitted in 1912-13.)

SECOND YEAR.

I. Technical Courses.

Comparative Pedagogy.—First or second term: Two hours.

Special Pedagogy.—Principles and methods, practice-teaching and observation work. Lectures. One hour. Teaching in the school of practice. Five hours. Conferences. Two hours. Systematic observations in elementary schools. Special assignments.

*II. Scholastic Courses.***Required.**

Social Science.—First or second term: Sociology and ethics. Two hours.

Educational Psychology.—First or second term: Child study. Two hours.

Philosophy.—First or second term: History of modern philosophy. Two hours.

Drawing.—One hour.

Music.—Vocal music. One hour.

Electives.

Mathematics.—First and second term: Analytical geometry and calculus. Three hours.

General Biology.—One hour lecture; two hours laboratory.

Advanced Physiology.—One hour lecture; two hours laboratory.

Botany.—One hour lecture; two hours laboratory.

Advanced Geography.—Three hours.

Economics.—First term: Economic theory. Second term: American economic problems. Three hours.

Political Science.—First term: Municipal government. Second term: American political theory. Three hours.

English Composition.—First term: The narrative. Second term: Description and versification. Two hours and a conference.

English Literature.—Special aspects of nineteenth century literature. Three hours.

Teachers' Playground Course.—Second term: Theory and practice. Three periods weekly.

BALTIMORE TEACHERS' TRAINING SCHOOL.**COURSE OF STUDY.**

It is intended that the first semester should be primarily cultural.¹ The student is not ready to take the attitude of a teacher. The first attack upon work in a new division of the school involves, however, many problems of apprenticeship and is especially favorable for developing a more experimental and liberal attitude.

At the beginning of the second semester all members of the corps cooperate in assisting the student to organize material from the standpoint of the learner's needs. The second and third semesters have their major emphasis upon apprenticeship.

There seems to be good reason to prefer that practice teaching be done during the third semester. When this is not possible, the course outlined requires re-adjustment to its advantage.

In the fourth semester the minors of culture and apprenticeship are of great importance, but it is desired that the chief interest should lie in the responsibility of the student for her own health, habits of work, knowledge of conditions and standards, and attitude toward life.

A convenient grouping of the courses is under the following heads: I. General courses—Assemblies, etc. II. Education and hygiene. III. Participation and practice. IV. Elementary-school subjects. V. School arts.

¹ See p. 30.

Division II. Education and Hygiene.*Education 101. First term—Junior year.***A Study of the Interests, Activities, and Occupations of Children and Older Students.**

A beginning is made in some observation and introspection on the part of the student with reference to his own methods of studying, taking notes, reciting, etc.

The characteristics and needs of children at various stages of development are studied, as well as the means used to meet these needs. This involves a consideration of the home and of such institutions as the day nursery, the kindergarten, the Montessori school, and the elementary school.

It is desired that the student shall become intimately acquainted with children as individuals and in groups, but shall have toward them other relations than those of the teacher.

Past and present attitudes toward such matters as instinct, habit, study, play, punishment, discipline, etc., are discussed.

Acquaintance is made with journals, texts, and reference books, and with the use of graphs and other means of comprehending and stating the material of most significance at this stage.

Assignment is made of problems in child life, school records, the use of graphs, etc., which can be worked out with advantage during the student's second term's work in the classroom.

Textbooks:

Betts—The Recitation.

Colvin and Bagley—Human Behavior.

Kirkpatrick—Individual in the Making; Fundamentals of Child Study.

McMurry—How to Study.

Reference books:

Burnett—The One I Know Best of All, etc.

Colvin—The Learning Process.

Dewey—School and Society.

Hall—Adolescence.

Johnson—Education by Plays and Games.

Montessori—Montessori Method.

Rowe—The Physical Nature of Child.

Shinn—Biography of a Baby.

Tanner—The Child.

Vandewalker—Kindergarten in the United States.

Wiggins—Children's Rights.

*Education 102. Second term—Junior year.***An Introduction to the Study of Psychology.**

Definitions, divisions, methods, and field of psychology are presented. A study of the function of consciousness is made; also of its aspects and processes, including structure, the divisions of the nervous system, and of the neuron with the function of its parts.

Stress is laid upon the study of such topics as attention and interest, instinct, and habit in relation to consciousness and upon the processes of sensation, perception, memory, and constructive imagination; also upon the definition,

description, characteristics, function, laws, and training of the various activities.

Textbooks:

Colvin and Bagley—Human Behavior.

Pillsbury—Essentials of Psychology.

Reference books:

Angell—Psychology.

Dewey—Psychology.

Hall—Founders of Modern Psychology.

James—Psychology.

Münsterberg—Psychology and the Teacher.

Education 103. Third term—Junior year.

Life in the School.

During the third term the point of view of the teacher is emphasized and the problems studied center in the school. The meaning, motive, and function of education, the curriculum in the broader and narrower senses of the term, and the methods used in learning and teaching are the most important topics.

A study is made of the types of lessons and plan making, with especial stress upon the psychological organization of subject matter, presentation, and motivation of the lesson and the types and form of questions.

In school administration the most immediate needs are discussed, as the organization and control of subject matter, class habits and ideals, and physical conditions.

During this term there is an especial effort to coordinate all the work on plan making in the several departments in order that each instructor may make use of what others are doing and that the net results may be most readily serviceable during the student's fourth term of preparation for senior practice teaching.

Textbooks:

Colvin.

Strayer—Brief Course in Teaching Process.

Reference books:

Bagley—The Educative Process.

Charters—Method of Teaching.

Hall—Aspects of Child Life and Education.

Miller—Psychology of Thinking.

Thorndike—Principles of Teaching; Education.

Education 104. Fourth term—Junior year.

Experiments in Psychology.

By the end of the third term the student is able to use the material in the works on psychology and child study with some degree of economy. Study is made of types of imagery and variation in reaction time. Assistance is given in the understanding and use of some of the tests for measuring penmanship, the Courtis tests in arithmetic and English, etc. It is not expected that students can become proficient in the work in so brief a course, but it is desired to help them to follow intelligently experiments that are carried on and to read with appreciation such journals as the Journal of Educational Psychology, the Psychological Clinic, etc.

Reference books:

Courtis Tests—Common Test.
 Seashore—Elementary Experiments in Psychology.
 Rusk—Introduction to Experimental Psychology.
 Starch—Experiments in Educational Psychology.
 Stone—Arithmetical Abilities.
 Titchener—Primer of Psychology.

Education 105. Fifth or seventh term—Senior year.

Principles of Teaching.

A further study of plans, especially inductive and deductive analogy; motivation, with stress upon initiative on part of the student; presentation and use of subject matter as a means rather than as an end; and the art of questioning leading to greatest individual initiative.

In school administration are presented various phases of school relations and obligations; divisions of class which afford the best possibilities for individual development; some study of standards; new tendencies and requirements in public schools.

Textbooks: Strayer—Brief Course in the Teaching Process.

Reference books:

Bolton—Principles of Teaching.
 Charters—Methods of Teaching.
 Dutton—School Management.
 King—Education for Social Efficiency.
 Betts—Social Principles of Education.
 Rowe—Habit Formation.
 Spencer—Education.

Education 106. Sixth or eighth term—Senior year.

The Reconstruction of Experience.

This course is best given in the last term of the second year. When it is taken in the sixth term some modifications are necessary.

It is intended that the student be given assistance in rounding up and coordinating the meaning of the various courses and other experiences of the two years, and in formulating an attitude toward some of the more important school and other social problems. The work done is chiefly in psychology, but much emphasis is laid upon ethical considerations. A study is made of the relations of mental processes and fatigue; the will as related to other forms of doing; the significance of interest and emotion; various theories of emotion; reasoning in its use of judgment, conception, and other process; the self and the development of character. Some attention is given to the outlook on life of various educators of the past and present.

Textbooks: Pillsbury.

Reference books:

Dewey and Tufts—Ethics.
 Dewey—Interest as Related to the Will—Moral Principles Underlying Education; How we Think.
 Hyde—The Teacher's Philosophy.
 Palmer—The Teacher.

Outlines and Plans.

Each class teacher is expected, to give instruction in the making of representative plans for both primary and higher grades. One plan made by a student for each of the large divisions of the course of study is to be filed by the teacher with the principal during the third term. Early in the fourth term students will present plans made, together with other evidence of fitness for undertaking practice teaching, to the teacher of practice to whose classes they have been assigned.

During the fourth term each teacher of practice will file with the principal one representative plan. Further work will be done in the various subjects, so that by the end of the junior year students will be able to make economically plans needed in their teaching.

Especial attention should be given in the plan making of the second semester to the necessity of planning for real situations involving real children. The participation work of the year should be made to contribute to this end.

Education 111, 112, 113, 114. Principal's conferences—Junior year.

These conferences vary according to the needs of the various sections.

The object is to afford regular opportunities for all students to confer upon questions, problems, and difficulties, and to attempt to determine the relationships of the several departments. A study is made by each student of one local social institution and of a similar institution located outside of the State.

The conferences are conducted with especial reference to preparation for participating in teachers' meetings and experience is gained in locating and using material of value in such meetings as the reports of the United States Bureau of Education, city and State school systems, educational organizations as the National Education Association, book reviews, the Cyclopedia of Education, etc.

Some time is given to stating cases which present concretely problems in school etiquette and school ethics.

Much attention is given to educational and other periodicals, especially the Survey.

Education 115, 116, 117, 118. Principal's conferences—Senior year.

The conferences during the semester of practice teaching are largely individual. During the other half of the year the work follows the general plan of the earlier courses.

King's Social Aspects of Education is used as a textbook, and there is much reading in the works of authors who emphasize the social responsibilities of education. Each student selects some field in which he can be of special service to the entire class.

Education 123. Fourth term—Junior year.

History of Education.

During the first and second terms in all departments, but especially in education and history and in the work of the teacher of the history of education, there is a constant presentation and discussion of educational problems with reference to their historical background.

At the opening of the third term this material is coordinated and organized so that the student has some idea of the present-day situation in school matters

and the developments of the eighteenth and nineteenth centuries most closely related to the present.

Following this work is a study of primitive education and of the systems of Asiatic countries, Greece, Rome, and the medieval period.

Education 125. Fifth or seventh terms—Senior year.

On the basis of what has been done in the junior year, a systematic study is undertaken of the place the school and other educational institutions has had in history, with especial reference to the period since the Renaissance. Much time is given to the study of the writings of the great educators and to the social and economic conditions out of which the various subjects of the curriculum have arisen.

Hygiene 101. First term—Junior year.

The work of this term has two main objects: (1) To aid the students to an understanding of some of the more important problems of personal hygiene as indicated by the reports upon the examinations made upon them by the examining physicians; (2) to introduce them to the book and journal material on school hygiene.

Much of the housekeeping in the school, including the boiling of water and the preparation of a simple noonday luncheon, is cared for by the students as a part of the work in hygiene.

Hygiene 102. Second term—Junior year.

The time spent by students during this term in close relations with children in the schoolroom is used in the hygiene periods to organize some standard reference material for present and future use in elevating and bettering conditions in schools. Acquaintance is made with the work of the janitor, the school physician and nurse, the district nurses, the health department, and other agencies of importance in the control of health conditions.

Hygiene 103. Third term—Junior year.

The emphasis in all departments this term upon the work of the teacher in instruction and other school work leads to cooperation with the teacher of physical training in the preparation of plans for exercises in the classroom, the gymnasium, the playground, and the home.

Hygiene 104. Fourth term—Junior year.

The experiments in psychology made at this time in fatigue and related fields are made use of. Before the end of the year each student works out a schedule of 168 hours for a child and for a teacher.

The work of such organizations as the Boy Scouts and the Camp Fire Girls is referred to and a brief course given in first aid to the injured.

Hygiene 105 and 106. Fifth and sixth or seventh and eighth terms—Senior year.

The work of the junior year is gone over in the light of later experience during the vacation and in teaching. The material collected is organized into a handbook, which the teacher can have at her desk for reference in the ordinary course and in the emergencies of her work.

Division III. Participation and Practice.*Participation 101. First term—Junior year.***Term I. Introduction to a Study of the School.**

Observation periods, excursions, conferences, and reports. Observation trips to high schools, kindergarten, and grade classes; trips to special institutions within and without the school, such as the dental clinic, dispensary, parental school, city hall, courthouse, customhouse, etc.

*Participation 102. Second term—Junior year.***The Study of a Neighborhood—Community and its School.**

The members of the junior class are assigned in groups of 6 to 10 for intimate work under the direction of the teachers of practice. Suggestive studies are made of the resources of the neighborhood in nature, art, recreation, industry, home life, civic institutions, etc.

Acquaintance is gained with special features of the particular schools, as cooperation with parents' organizations and the municipal art league, civic centers, equipment for playgrounds, automatic fire extinguishers, vacuum cleaning apparatus, etc. Diagrams drawn of the locality, the school grounds, building, classroom, etc. Computations made of the play space, air space, and light available as compared with determined standards.

*Participation 103. Third term—Junior year.***The Curriculum as a Social Growth.**

The aim of this course is to coordinate the work done in all departments during the first half year and to assist the students to organize the larger movements of the elementary course of study to serve as a background for the plan-making which is emphasized by all teachers at this time.

*Participation 104. Fourth term—Junior year.***Preparation for Senior Practice Teaching.**

The assignment in groups for Term II is made, as far as possible, to home neighborhoods in order to give the students the opportunity to work in fields with which they have at the start some acquaintance.

*Participation 105, 106. First and second terms—Senior year (for some students third and fourth terms).***Special Teaching Problems.**

During the half year of teaching some time is spent by students individually and in small groups in the study of educational situations which will lead to more thoughtful consideration of their immediate problems in wider relationships. Visits are made to classes in practice salesmanship under criticism in store schools, to the classes of expert teachers in private and public schools, to college classes working in subject matter of especial significance to the student, etc.

Participation 107, 108. Third and fourth terms—Senior year (for some students first and second terms).

Students are helped to round up what knowledge they have gained of the city school system, and to determine what studies and visits are needed to supplement this and to make it more effective.

Practice teaching 111, 112. First and second terms—Senior year (third and fourth terms for some students).

One semester of the senior year is spent in residence in the elementary school. Regular conferences are held both within and without school hours, in which there are discussions of problems centering in the teaching, but involving observation, study, investigation, and conference with various persons.

Before completing the course a student must demonstrate her ability to meet practically the various situations arising in a classroom and for some period of time to conduct the work of a class independently.

Division IV. Elementary School Subjects.

COURSES IN ENGLISH.

English 101. First term—Junior year.

The first problem of instructor and students in the English course is to determine the working possibilities and actual achievement of the various students in composition, reading, note taking, outlining, reading aloud, public speaking, reciting, spelling, penmanship, etc. To accomplish this end, class and individual conferences and tests are used, and a record is made of the results in such form that all parties concerned may have the advantage of knowledge of individual differences.

On the basis of these studies the students are classified into working groups, according to their ability to act independently and their need of instruction and assistance.

Early in the course a few periods are taken to gain acquaintance with the resources and the organization of the school library.

English 102. Second term—Junior year.

The two main objects of the work of this term are to develop a common-sense view of the use of "Everyday English" and to gain an acquaintance with the English course of study in the elementary schools of Baltimore. Some attention is paid to the courses given in other city systems, and further use is made of the organization of the first term, especially as it concerned elementary and secondary studies.

English 103. Third term—Junior year.

The work of this term is necessarily more definitely specialized and stresses apprenticeship. Much time is given to the transfer from outlines of subject matter to the statement of subject matter. Lesson plans are worked out for both primary and grammar grade classes.

English 104. Fourth term—Junior year.

During the second and third terms the students have had some contact with a large number of elementary textbooks. In the fourth term some classification of the various types of readers, language books, etc., is undertaken. Reviews and comparisons of books are written from the standpoint of the teacher, who is called upon to make recommendation of new texts.

Reading lists are made for children of various ages and interests; also for adults. The public and other libraries are studied from the standpoint of the needs which they recognize and attempt to meet.

English 105. First or third term—Senior year.

The books on the teaching of English used during the junior year are gone through more systematically, in order that each student may have an organized body of principles of English teaching derived from his experience in the subject and closely related to it. He must prove that he is able to find and use the reference, periodical, and text material of the department.

Much time is given to the courses of study used in other schools.

English 106. Second or fourth term—Senior year.

In the last term the emphasis is upon the individual and his future work in English. Whatever acquaintance the student has with other languages and with Anglo-Saxon, and especially middle English, is used to aid him to regard language as a changing, growing tool of communication.

Some time is given to the announcements of English courses in normal schools and in universities, and special study is made of the possibilities open to these students for further growth by the use of libraries, clubs, extension classes, etc.

COURSES IN HISTORY.

History 101. First term—Junior year.

As in the other departments much time is given during the first term to determining the status of individual students in history. A record is made of the work that each student has done and also of his command of background essentials.

A beginning is made in local studies centering in Baltimore and Maryland. A special syllabus is provided for this work in local history and geography. Expeditions are made in connection with the course in participation.

History 102. Second term—Junior year.

The work of this term includes a continuation of local studies and an investigation of the Baltimore course of study in history for elementary schools. History is considered as the center of humanistic studies and as a subject requiring acquaintance with simple and fundamental occupations and activities as well as with the more highly developed aspects such as politics, art, and religion.

History 103 and 104. Third and fourth terms—Junior year.

During this term the student is expected to reach the point where he can think through and state the local course of study in history in its various as-

pects as America, Europe, industry, art, religion, war, education, the home, child life, woman, etc.

In the plan making the aim is to show the necessity of extensive background knowledge which the particular plan in a sense indexes and adapts to the needs of a particular group of children known to some extent to the student. These plans are concerned as well with simple social situations as with more complex historical material.

During the fourth term the student's control of social material is further tested by his experience in participation work in the grade assigned.

History 105. First or, third term—Senior year.

Mace's Method in History is used as a central text in assisting the student to organize a system of principles of history teaching. A number of courses of study in history are criticized and comparisons are made with reference to the proportionate amount of time given in various school systems and the divisions of history which receive the most consideration.

History 106. Second or fourth term—Senior year.

An attempt is made in this closing term to discuss history in its relation to the individual's needs and development. In a very limited sense the work has to do with those problems which will require further study in ethics, sociology, and economics.

Mathematics 101. First term—Junior year.

The object of this term's work is to determine the status of the individual students in their use and control of arithmetical processes and methods. Tests are given to find out proficiency and special needs. Each student makes a record of the results of this diagnosis and of the requirements which must be met in order to do efficient work.

Some time is spent upon the special mathematics required in ordinary adult life and especially in the home and school, as the keeping of personal accounts, the use of graphs, the mathematical knowledge and practice needed to use weather records and other information commonly found in newspapers, magazine articles, institutional reports, almanacs, etc.

A brief but comprehensive survey is made of the mathematics courses given in the various secondary schools.

Mathematics 102. Second term—Junior year.

The place of mathematics in the lives of children and those adults who do not reach the higher mathematical studies is discussed. The elementary course of study is gone through in order to determine what mathematical facts and processes are needed in the various grades.

The major stress is upon determining and improving the habits and methods of students in the fundamental operations and processes of arithmetic.

Mathematics 103. Third term—Junior year.

The child's need of mathematics at various stages of development and the best method of assisting him to the control of its processes is the object of this term's work.

Mathematics 104. One term—Senior year.

Further acquaintance is made with the present status of testing mathematical work by means of Stone's Arithmetical Abilities, the Courtis Tests, etc. The most economical methods of keeping school records, tabulating results of tests, marking papers, the use of medians and averages, etc., are considered.

Baltimore Teachers' Training School course of study.

Subjects.	Junior.	Senior.	Total.
	Credits.	Credits.	Credits.
Education.....	20	11	31
Child study and psychology.....			12
Principles of teaching.....			6
History of education.....			7
Principal's conferences and social education.....			6
Hygiene.....	4	2	6
Participation and practice.....	6	43	49
Participation.....			9
Practice.....			40
Arithmetic.....	8	3	11
English.....	12	6	18
Geography.....	6	3	9
History.....	6	3	9
Nature study.....	4	2	6
Art.....	4	2	6
Manual and household arts.....	2	1	3
Music.....	4	2	6
Physical training.....	4	2	6
Total.....	80	80	160

NORMAL TRAINING SCHOOL FOR GIRLS, READING, PA.

JUNIOR.

A.	Periods a week.	B.	Periods a week.
Ethics	2	Child literature and English.....	4
Child literature	4	Child study.....	2
Psychology.....	4	Principles of school management..	2
English grammar.....	2	Nature study.....	2
Nature study.....	2	History of education.....	4
General principles of method.....	2	Geography with special method....	2
Arithmetic, review	4	U. S. history with special method..	2
Music.....	1	Music.....	1
Drawing	1	Drawing	1
Penmanship.....	1	Penmanship.....	1
Physical culture.....	1	Physical culture.....	1
Manual training.....	1	Manual training.....	1
	25		25

NORMAL TRAINING SCHOOL FOR GIRLS, READING, PA.—Continued.

SENIOR.

A.		B.	
	Periods a week.		Periods a week.
Rhetoric and English composition_	1	Rhetoric and English composition_	1
Zoology -----	2	Botany -----	2
Observation -----	8	Observation -----	3
Practice -----	4	Practice -----	8
Critique -----	2	Critique -----	1
Special problems in management_	1	Special problems in management_	1
Special methods in principles, read- ing, and language -----	1	Special method in primary read- ing, language, and number -----	1
Special method in arithmetic -----	1	Special method in arithmetic and mensuration -----	2
Music -----	1	Professional reading and book re- view -----	1
Drawing -----	1	Music -----	1
Penmanship -----	1	Drawing -----	1
Physical culture -----	1	Penmanship -----	1
Manual training -----	1	Physical culture -----	1
	25	Manual training -----	1
			25

CARROLL ROBBINS TRAINING SCHOOL, TRENTON, N. J.

Regular course.

FIRST YEAR.

First term.			Second term.		
Subjects.	Recita- tions.	Outside study.	Subjects.	Recita- tions.	Outside study.
	Hours per week.	Hours per week.		Hours per week.	Hours per week.
Logic.....	1½	3	Psychology.....	3½	3
English.....	3½	1½	English.....	2	1½
Science.....	2	2	Reading.....	1½	2
Primary methods.....	3½	2½	Science.....	2½	2
Drawing.....	1	1	Methods in geography.....	1½	2½
Music.....	1		Music.....	1	
General geography.....	2	2½	Drawing.....	1½	½
Penmanship.....	1½	1	Methods in mathematics.....	2	2
Physical training.....	1	½	Manual arts.....	1	1½
Manual arts.....	1	1½	Observation and teaching.....	5½	3-5
Reading and voice training....	1½	2	Critic class.....	½	
Games.....	1½	1			
Total.....	20½	18½	Total.....	22½	18-20

SECOND YEAR.

Child study.....	3½	3	Philosophy of education.....	2½	3
Clinic.....			Professional reading.....	½	
English.....	3½	1½	Methods in history.....	3½	3
History of education.....	2½	3	Music.....	1½	
General history.....	2½	3	Educational sociology (10 weeks).....	3½	3
Drawing.....	1	½	School management and school law (10 weeks).....	3½	2
Music.....	1		Drawing.....	1½	1½
Domestic art.....	1	1½	Methods in mathematics.....	2	1½
Physical training.....	1	½	Games.....	2	1
Observation and teaching.....	5½	5-7	Observation and teaching.....	6	5-7
Critic class.....	½		Critic class.....	½	
			Clinic.....	½	
Total.....	22½	18-20	Total.....	23½	18-20

CARROLL ROBBINS TRAINING SCHOOL, TRENTON, N. J.—Continued.

Kindergarten.

FIRST YEAR.

First term.			Second term.		
Subjects.	Recita- tions.	Outside study.	Subjects.	Recita- tions.	Outside study.
(Same as regular course, given above.)			Psychology.....	3½	3
			English.....	2	1½
			Science.....	2½	2
			Methods in geography (10 weeks).....	1½	2½
			Music.....	1	.....
			Drawing.....	1½	½
			Methods in mathematics.....	2	2
			Manual arts.....	1	1½
			Manual work (kindergarten) (10 weeks).....	1½	.....
			Gifts and occupations.....	3½	2
			Observation and teaching.....	2½	3
			Critic class.....	.....	.....
			Total.....	22½	18

SECOND YEAR.

Child study.....	3½	3	Philosophy of education.....	2½	3
Clinic.....	.....	.....	Professional reading.....	.....	.....
English.....	3½	1½	Educational sociology (10 weeks).....	3½	2
History of education.....	2½	3	School management and school law (10 weeks).....	3½	2
Drawing.....	1	½	Drawing.....	1½	1½
Music.....	1	.....	Clinic.....	.....	.....
Domestic art.....	1	1½	Mother play and kindergarten program.....	3½	2½
Physical training.....	1	½	Games.....	2	1
Gifts and occupations.....	1½	.....	Observation and teaching.....	6	5-7
Kindergarten theory.....	3½	2½	Critic class.....	.....	.....
Observation and teaching.....	5½	5-7	Methods in history (10 weeks). Music.....	3½ 1½	3
Critic class.....	.....	.....	Total.....	25½	18
Total.....	24½	17-19			

WASHINGTON NORMAL SCHOOL No. 2 (COLORED).

Proposed distribution of time in regular course, 1912-13.

Subjects	Hours.	Per cent of whole time.
Psychology.....	108	5
History and principles of education.....	108	5
Child study.....	54	2½
Principles of teaching.....	90	4½
English—in toto.....	324	15
Logic.....	36	1½
School management and school hygiene.....	36	1½
Physiology and personal hygiene.....	36	1½
Gardening and nature study.....	36	1½
Penmanship.....	36	1½
Primary methods: Number, reading, geography, spelling, nature study, language, phonics.....	252	11½
Practice and observation.....	540	25
Specials: Drawing, music, physical training.....	324	15
Lectures by authorities and study under faculty guidance.....	180	8½
Total.....	2,160	100

CLEVELAND NORMAL TRAINING SCHOOL, 1910-11.

JUNIOR YEAR.		SENIOR YEAR.	
<i>Fall term.</i>		<i>Fall term.</i>	
	Periods.		Periods.
Psychology -----	3	Arithmetic and methods-----	3
Reading and phonics-----	3	Classroom management-----	3
American literature-----	3	Literature -----	3
Composition -----	1	Geography -----	3
United States history-----	3	History methods or primary	
Elementary school science-----	¹ 3	methods -----	² 2
Music -----	2	Penmanship -----	1
Drawing -----	¹ 1	Civics -----	3
Physical training-----	2	Music -----	1
	21	Drawing -----	¹ 1
		Physical training-----	2
<i>Winter term.</i>			22
Psychology -----	3	<i>Winter term.</i>	
Method of the recitation-----	3	History and principles of educa-	
Juvenile literature-----	3	tion -----	3
Composition -----	1	Grammar -----	3
United States history-----	3	Geography methods or language	
Elementary school science-----	¹ 3	methods -----	¹ ² 3
Music -----	1	Physiology -----	3
Drawing -----	¹ 1	Music -----	1
Physical training-----	2	Drawing -----	¹ 1
	20	Physical training-----	2
		Observation -----	² 2
<i>Spring term.</i>			19
Psychology (child study)-----	2	<i>Spring term.</i>	
Method of the recitation-----	3	Practice at Case-Woodland and Wil-	
Arithmetic -----	3	son schools.	
Reading and methods-----	2	Exercises in spelling and pronuncia-	
Composition -----	1	tion under the direction of the superin-	
Geography -----	3	tendent.	
Elementary school science-----	¹ 3	Chorus singing (unprepared) by all	
Music -----	1	students, one hour a week in the spring	
Drawing -----	¹ 1	term.	
Physical training-----	2		
	21		

NOTE.—Observation (informal) in each term, once a week.

¹ One (double) laboratory period not prepared.
² Primary methods and language methods for those preparing for first and second grade work. History methods and geography methods for those preparing for work above second grade.
³ One period not prepared; one period of reports prepared.

TOLEDO (OHIO) NORMAL SCHOOL COURSE.

JUNIORS.

First semester.

Psychology-----	20 weeks, 1 hour daily.
Methods in reading and spelling-----	10 weeks, 1 hour daily.
Methods in language and grammar-----	10 weeks, 1 hour daily.
General methods:	
Principles of teaching-----	} 5 weeks.
Principles of questioning-----	
The lesson and its parts-----	
Illustrative lessons-----	Throughout the year.
Methods in geography and fall nature study-----	15 weeks, 1 hour daily.

Second semester.

History of education-----	20 weeks, 1 hour daily.
Methods in arithmetic-----	20 weeks, 1 hour daily.
Methods in history with story telling-----	10 weeks, 1 hour daily.
Methods in spring nature study-----	10 weeks, 3 hours weekly.
Special branches: Physiology, physical training, drawing, music, and woodwork-----	1 hour weekly throughout the year.

SENIORS.

Practice in teaching:

First division—

Substitute first 10 weeks of each semester.

Train second 10 weeks of each semester.

Second division—

Train first 10 weeks of each semester.

Substitute second 10 weeks of each semester.

Students who can not train in practice room will, if possible, be placed with teachers in other buildings the second five weeks of the term.

Each division at Jefferson School will have one recitation in the morning and one in the afternoon.

Theory: Philosophy of teaching, with methods of

ethical training -----	20 weeks, 4 hours weekly.
School management -----	12 weeks, 4 hours weekly.

All substitutes not on duty are required to be present at recitation. Each senior is required to read and review five books from a specified list, one each on pedagogy, history, literature, nature, and art.

General criticisms and analysis of lessons one hour weekly. Observation as assigned. Drawing one hour weekly throughout the year. Music one hour weekly throughout the year. Sewing and wood carving one hour weekly throughout the year.

OUTLINE OF WORK OF THE INDIANAPOLIS NORMAL SCHOOL.

The course of study or work is a two years' course. The first year is given to the work of the normal school proper. Here the course is in the theory and practice of education. The second year is given to teaching under the direction of a director of practice. At the end of the second year the young woman may receive her diploma.

FIRST YEAR.

In the first year the course of study is substantially as follows:

Psychology and principles of education.—Five hours of 45 minutes each per week (40 weeks). This is prepared work. The textbooks are James' Shorter Course, Talks to Teachers; Judd's Genetic Psychology; Dewey's How We Think; Bagley's Educative Process; Thorndike's Psychology and Principles of Teaching.

History of education.—Twice a week for 6 weeks. This is prepared work. Textbook: Quick's Educational Reformers.

School hygiene.—Two hours a week for 10 weeks. Prepared work. Text used: Shaw's School Hygiene.

Studies in general method.—Four hours per week for 20 weeks. This work is prepared. Texts: Hinsdale, McMurry, DeGarmo, Strayer, Bagley, and Thorndike.

Reading and literature.—Two hours per week for 20 weeks. This work in general is prepared. Texts: Huey's Psychology and Pedagogy of Reading and material used in elementary city schools.

Geography.—Four hours per week for 20 weeks. This is prepared work. Texts: Dryer's Physical Geography; Dodge's Series of Geographies; Robinson's Commercial Geography, supplemented by other geographical material.¹

Physiology and hygiene.—One hour per week for 40 weeks. Prepared work. Text: Hough and Sedgwick. Observation and lectures also given.

The texts listed are supplemented by educational monographs and magazine articles. All of the texts are used as *sources of material* rather than as textbooks.

Young women in the first year also receive training in what we call the "school arts." None of this work is prepared. This work covers the following:

Drawing.—Three hours a week, for the entire year of 40 weeks, under the direction of the supervisor of drawing. This work is done in the drawing room of the director at Shortridge High School, one block from normal school.

Manual training.—Chiefly in woodwork, two hours a week the entire year, under the direction of the supervisor of manual training. Work is done in shop of No. 11, eight blocks from normal school.

Sewing.—Two hours per week, for 40 weeks, under the direction of the supervisor of sewing.

Music.—One hour per week, for 40 weeks, under the direction of the supervisor of music.

Penmanship.—One hour per week, for 40 weeks, under the direction of the supervisor of penmanship.

Physical training.—One hour per week, for 40 weeks, under the direction of the supervisor of physical training.

Elementary botany or nature study.—An hour and a half per week for 40 weeks. Sometimes field excursions take the place of the classroom recitations, when the time is extended to two hours or two hours and a half. These field excursions number probably 20 during the year. This work is under the direction of the director of elementary science or nature study. Work is done in laboratory of nature study at Shortridge.

¹Tarr's Phy. Geog.; Gilbert & Brigham Phy. Geog.; Mills International Geog.; Chisholm's Com. Geog.; Adams's Com. Geog.; Gannett's Com. Geog.; Frye's Geog., which is used in city schools.

SECOND YEAR.

During the first half of the second year each young woman teaches a room where she is under the immediate direction of the director of practice. This room is a room normal in size, with the regulation number of children, and the young woman teaches all of the subjects after some observation of the director.

Each director of practice has two of these young women under her immediate charge, the two, as a rule, being in adjacent rooms. At the expiration of the five months, or first half of the year, the young woman takes charge of a school in a building as a rule remote from her director of practice. She is still, however, under the direction of the director. At the end of this second year's work, if successful, the candidate receives her diploma. Sometimes the diploma is deferred a half year—if a candidate is unsuccessful but gives promise of making good in a longer period of practice.

CHICAGO TEACHERS COLLEGE.

ELEMENTARY TRAINING COURSE.

Undergraduate courses: Elementary training course; kindergarten training course; industrial arts training course; household arts—cookery, sewing.	Graduate courses: Oral instruction of the deaf; instruction of crippled children.
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Necessary for graduation: 14 majors, 16 minors.

A Major represents 100 hours of recitation.

A Minor represents 20 hours of singing, of gymnastics, or of general, shop, or laboratory work.

FIRST YEAR:		SECOND YEAR:	
<i>Required:</i>	Majors.	<i>Required:</i>	Majors.
Psychology-----	1	Education-----	1
English -----	1	History-----	1
Geography-----	1	Special method-----	0.4
Mathematics-----	1	Physiology and physical edu-	
Science, physical and biological	1	cation -----	0.6
Arts, graphic and industrial--	1	Practice teaching -----	3
	Minors.	<i>Elective in any department or depart-</i>	
Ethics-----	1	<i>ments-----</i>	2
Oral expression-----	1	<i>Required:</i>	Minors.
Music -----	2	Music-----	3
Gymnastics-----	4	General exercises and chorus--	2
General exercises and chorus--	2	<i>Elective in any department-----</i>	1

KINDERGARTEN TRAINING COURSE.

Necessary for graduation : 14 majors, 16 minora

FIRST YEAR:		SECOND YEAR:	
Required:	Majors.	Required:	Majors.
Psychology -----	1	Education -----	1
Kindergarten -----	2	Kindergarten -----	2
English -----	1	Special method -----	0.4
Graphic arts -----	1	Science -----	1
Physical education and physi-		Mathematics and geography--	1
ology and hygiene -----	0.6	Practice teaching -----	3
	Minors.		Minors.
Gymnastics -----	4	General exercises and chorus--	2
Music -----	2	Field science -----	1
Kindergarten music -----	2	Elective:	
General exercises and chorus--	2	-----	3

INDUSTRIAL ARTS TRAINING COURSE.

Necessary for graduation : 14 majors, 16 minors.

FIRST YEAR:		SECOND YEAR:	
Required:	Minors.	Required:	Majors.
Psychology -----	1	Education -----	1
Graphic arts -----	1.5	Industrial arts -----	1.5
Industrial arts -----	1.5		Minors.
English -----	1	History -----	1
Science and geography -----	1	Mathematics and science ----	1
General exercises and chorus--	2	Practice teaching -----	3
Shop work -----	6	General exercises and chorus--	2
Elective:		Shop work -----	4
-----	2		

HOUSEHOLD ARTS TRAINING COURSE.

Necessary for graduation : 14 majors, 16 minors.

FIRST YEAR:		SECOND YEAR:	
Required:	Majors.	Required:	Majors.
Psychology -----	1	Education -----	1
English -----	1	History -----	1
Science -----	1	Science -----	1
Art -----	1	Household arts -----	2
Household arts -----	2	Practice teaching -----	3
	Minors.		Minors.
General exercises and chorus--	2	General exercises and chorus--	2
Gymnastics -----	4	Household arts -----	6
Science -----	3		
Art -----	1		

ORAL INSTRUCTION OF THE DEAF.

ONE YEAR:			
Required:	Majors.		Minors.
Special -----	4	Special -----	4
Psychology -----	1	Elective in one department:	
Practice teaching -----	2	-----	Majors.
			1

ST. PAUL TEACHERS' TRAINING SCHOOL.

The regular professional course of study, two years in length, includes the following subjects:

	Hours.		Hours.
Psychology-----	90	History and civics, review and	
Pedagogy-----	90	methods-----	125
History of education-----	90	Physiology and hygiene-----	65
School management-----	40	Nature study-----	65
Sociology-----	65	Kindergarten theory-----	76
Reading, review and methods-----	190	Music-----	100
Grammar and language, review		Drawing-----	100
and methods-----	190	Penmanship-----	76
Geography, review and methods--	190	Industrial training-----	65
Arithmetic, review and methods--	125	Physical training-----	65
		Observation and practice-----	400

THE BIRMINGHAM (ALA.) TRAINING SCHOOL FOR TEACHERS.

(Figures indicate number of periods per week.)

JUNIOR YEAR—ELEMENTARY SECTION.

First Semester.		Second Semester.	
Psychology and child study-----	4	General theory of education-----	3
History of education-----	4	Kindergarten theory-----	4
Reading, literature, and expres-		Geography and history-----	4
sion-----	2	Arithmetic-----	4
Physiology and hygiene-----	3	Nature study-----	1
Language and grammar-----	4	Vocal music-----	2
Vocal music-----	2	Drawing and industrial art-----	2
Drawing and industrial art-----	2	Physical culture-----	2
Physical culture-----	2	Primary work and observation----	2
Primary work and observation----	2		

SENIOR YEAR.

First Semester.		Second Semester.	
School management-----	4	School management-----	3
Social science-----	4	The school arts-----	4
Primary and intermediate methods--	4	General method-----	4
Vocal music-----	2	Vocal music-----	2
Elementary art and design-----	2	Elementary art and design-----	2
Physical culture-----	2	Physical culture-----	2
Practice teaching.		Practice teaching.	

THE KINDERGARTEN SECTION.

For students electing to take the kindergarten course, kindergarten technics, including gifts, games, songs, stories, and occupations, will be substituted for such subjects as are taught especially in the intermediate and advanced grades of the elementary schools. Members of the senior class will be assigned to daily practice work under the direction of the supervisor of kindergartens.

SPECIAL COURSES.

The report of the superintendent of the New York schools for 1910-11 urges the establishment in both the New York and Brooklyn schools of departments for the training of teachers to cure speech defects.

The plan should be to select teachers in the regular corps who have had a few years of experience and who have shown talent and willingness to do special work with mentally defective children or with children suffering from speech defects and to give them for three months the special training which they require.

In 1912-13 the following course was given to 15 experienced teachers at Brooklyn, who received their regular salaries during the time of training:

BROOKLYN (N. Y.) COURSE FOR THE TRAINING OF TEACHERS OF UNGRADED CLASSES.

	Hours.
(Time, 3 months.)	
Psychology—with special reference to mental deficiency-----	60
Physiology—with special reference to pathological conditions found in school children-----	30
General lectures-----	10
Speech—study of the curative treatment of defects and disturbances of speech-----	30
Methods of teaching the beginnings of reading, spelling, language, writing, and number-----	30
Story telling-----	20
Class management—including observation in ungraded classes-----	60
Physical training-----	60
	300

Manual training, after school hours, to suit individual needs of teachers.

There is room for valuable experimental work in the training schools in the teaching of sex hygiene. However one may feel about the difficulties of presenting this subject to young children, or even to high-school students, there would seem to be no excuse for permitting young women to go into the school conditions and encounter the dangers which they frequently meet there with no preparation in this field.

RECITATION PERIODS.

Some city training schools have had the reputation of devoting so much time to recitation periods that there was little opportunity to students for developing in independent study and initiative. There is a great temptation to yield to the immediate demands made by the crowded elementary curriculum and to meet the criticisms of the lower schools by more time in the training school upon

the subjects under fire. In a large school, in which the students recited nearly 30 periods a week, almost every teacher when asked apart from the others what was most needed in the school replied: "More time for my subjects."

Dr. Brandon, in his report on Latin American normal schools,¹ notes this problem in Chile, where 16 to 18 studies are carried at once, involving at times 45 recitation periods a week. In these schools the teacher develops or dictates the lesson and the pupils take notes or copy the dictation. The Chilean schools were formed under European influence. Those of Argentina were established by North Americans, and in them textbooks are used to a much greater extent. The following quotation from Dr. Brandon suggests an interesting interpretation of the number of schedule periods: "The two methods can be traced pretty accurately by the greater or less number of class hours per week."

The following table shows the number of schedule and study periods, also the number during which the teachers are occupied with classwork in 30 schools.

Schedule and study periods in certain cities.

Cities.	Schedule periods.	Study periods.	Periods teachers occupied.
Akron.....	20	2	20
Albany.....	24	6	24
Atlanta.....	25	5	25
Baltimore;			
White.....	30	4-8	17
Colored.....	30	5	17
Boston.....	30	2-4	16
Buffalo.....	25	5	10
Charleston.....	30	5	25
Cleveland.....	35	10	15-18
Columbus.....	25	0	20
Concord.....	12	7	(All)
Dayton.....	25	3	25
Elmira.....	27	15	15
Evansville.....	24	10	20
Fall River.....	30	4	20-24
Fort Wayne.....	25	5	20
Indianapolis.....	30	7	12
Jamaica.....	30	5	17
New Orleans.....	30	2	22-24
Newark.....	25	3	20
New York.....	25	0	15-20
Philadelphia.....	25	0	16-22
Richmond.....	30	10	30
Rochester.....	25	2	15-20
St. Louis (colored).....	35	5-8	25
Washington:			
White.....	30	5	25
Colored.....	30	3	20
Watertown.....	24	0	.....
Yonkers.....	30	2	.....
Youngstown.....	(45) 20	(1)	22

¹ Four afternoons free.

COLLEGE GRADUATES AND NORMAL TRAINING.

It is hoped by many who have a wide knowledge of the elementary situation that there may soon be possible such conditions as will place

¹ Bulletin of the Bureau of Education, 1912, No. 30.

elementary schools in charge of teachers with preparation equivalent to a college course. Cincinnati is the only city which has reached this standard. Cleveland provides a college section in which graduates of approved colleges spend one term of 13 weeks in practice teaching preceded by a term given to the following schedule: Classroom management, geography, general methods of the recitation, history and principles of education, biology—each three hours a week; music and physical training—each two hours a week, and art one hour a week.

In Indianapolis a liberal arrangement is made: "Young women who have diplomas from standard colleges may be given two years' credit for such college work, provided they have had successful experience in teaching in schools under supervision." A third year's credit is added for graduation from the practice school.

In the section under colored schools an account is given of the advanced course in the Washington Training School (colored).

Two cities receive only advanced students, and the course given is in the practice school. Cambridge, Mass., in 1884 opened the Wellington Training School for Teachers, with a year's term of service; 596 students have been enrolled, of whom 176 are teaching in the Cambridge schools. They are paid at the rate of \$300 per year for the first half year, and \$400 for the second half. Two critic teachers and a principal have charge of the work. The seventh and eighth grades are taught by experienced teachers. In 1911 there were 7 college, 13 normal-school, and 8 kindergarten graduates. Preference is given to graduates of the Cambridge High and Latin School who have also graduated from one of the Massachusetts State normal schools. There are about a thousand pupils in all the grades and the kindergartens. Extra substitutes are assigned to the school in order to make visiting possible.

Chelsea, Mass., has a similar plan. Six students are received each year. They are paid at the rate of \$300 for the year's course. If successful they receive a diploma, which makes them eligible for regular positions when vacancies occur. The supervision of the principal and of a critic teacher extends over their probationary period of one year, in which the salary is \$500. In the training school the grades one, five, seven, and eight are taught by regular teachers.

A well-known experiment was made in Brookline in 1895. The following statement is made by Prof. Dutton:

I was permitted by the board of education to start a class in 1895. I continued it for five years, until I came to New York. The first year I had 10 college graduates and the last year about 40. They were all young women but 2 or 3, and came from Radcliffe, Smith, Wellesley, and Vassar. The last year they paid a tuition of \$50 and gave their whole time to work in the schools to which they were assigned. Two afternoons a week they assembled for

instruction in theory. As this was a private venture, it did not continue after I left Brookline. I think there were not as many college graduates in the Teachers College when I came here as I had that last year. I have kept no record of the class, and the members are scattered. A good number are teaching; some are married. It was interesting because we were able to do as we pleased. Some of those who were in the class have done brilliant work. I do not know that there has been any similar experiment, and at the time we began few college graduates in New England were taking training, although willing to consider primary work.

PRACTICE TEACHING AND OBSERVATION WORK.

The work in observation and in practice teaching is one of the most distinctive features of the training school. It is on the basis of the work of this department that Dr. Sheldon used the term "training school" to designate the institution which he founded at Oswego, in order to distinguish it from the earlier normal schools, which did not attempt the training of teachers in the actual practice of their profession.

There are two strong tendencies in the schools: One is toward apprenticeship and the other toward reducing apprenticeship to a minimum. The pupil-teacher system in England placed the young adolescent in a classroom and expected him by imitation and learning by doing to become a teacher. The limitations and dangers of this plan have led to various modifications. In State schools the large number of students requiring practice teaching and the limited number of elementary pupils available tend to reduce the amount of practice teaching. In city schools practice teaching is often a means of saving money, and so is less limited. In the greater number of the city schools at least one-fourth of the two years' course is given to this phase of training.

There are two types of work. In one case students are assigned to the charge of critic teachers, under whose direction they are initiated into the problems of teaching. This is the more common method. Under the other plan each student is assigned to work with the principal of a building and has opportunity to gain acquaintance with a varied type of needs in her work as substitute for absent teachers and helper in the office and the various classrooms. Naturally the latter plan is more satisfactory in a large city in which the principals are highly trained and give much of their time to supervision. New York City and St. Louis are the most noteworthy examples of cities using this means of training. Principals of elementary schools sometimes prefer this plan because by it they are able to enter at an early stage into the training of teachers whom later they secure to fill vacancies in their schools.

In schools in which the principals spend the greater part of their time in teaching this system has little to commend it, and, even under more favorable conditions, it is hard to see how it can be accounted equal to the plan which calls for specially trained teachers who act as critics and guides. The danger is that in many cities the advance is not made which one superintendent reports: "Heretofore the question has always been, 'Where do they need a cadet?' Now it is, 'Where will the cadet get the best training?'"

The main difficulty in this more common method comes from the lack of higher training given to these critic teachers. It is shown elsewhere (p. 83) that the requirements in preparation and the remuneration of these teachers are almost without exception less than those of "theory" teachers. A teacher in this work needs thorough knowledge of children and all other qualifications demanded of a successful elementary school-teacher; but without special higher training it is very difficult for her to organize the situation so that the inexperienced student will have opportunities for taking real responsibilities and for using her best forces in ways which are most economical and effective from the standpoint of her own possibilities.

In order to overcome the tendency on the part of the director of practice to do too much for her students, it is frequently customary to give each director charge of two rooms, so that for at least half the time each student is alone. This has many advantages, but in a situation offering special difficulties the strain of seeing that children do not suffer is very heavy. In a report made recently by an expert upon the work of a city training school, a recommendation was made that each critic have charge of three rooms taught by three seniors. "By this arrangement there will be a saving of 15 to 18 teachers." It is difficult to see what argument beyond immediate financial economy could be urged for this plan.

In a city which has recently changed from the one-room to the two-room basis the superintendent reports: "As a result the graduates of 1911 have assumed regular places in our system without the usual suspense and hesitation."

A question of much importance is that of the advantages, respectively, of a centralized and of a decentralized system¹ of practice

¹ In the proposed plans only four classrooms for children and one kindergarten room are contemplated. This will require much of the model work and all of the practice work to be done in outside schools. The model classes should consist of all grades and should be scattered throughout the entire city—all under the special supervision of the normal school. The advantage of thus scattering the model classes will be to afford examples in several schools of what ideally perfect work should be—or, at least, how far it is possible to secure ideally perfect work under existing conditions. So, also, the practice teaching will need to be scattered among several different schools. This work, also, should be supervised by someone connected with the normal and training school. Some years ago when practice work was thus scattered, it proved unsatisfactory. The result was due, in my judgment, not to the fact that the classes were scattered, but rather to

rooms. In the former case the practice teaching is done in a central school having close relations to the training school. In the latter the classes are scattered throughout the city. Albany, Akron, Atlanta, Bridgeport, Cambridge, Cleveland, Columbus, Elmira, Fall River, Fort Wayne, Louisville, Muskegon, New Orleans, Paterson, Schenectady, and Syracuse prefer the centralized systems. The scattered plan is advocated by Davenport, Evansville, Erie, Jersey City, Kansas City (Kans.), and Yonkers.

The difficulties of the necessary sharing of control with others than members of the training-school administration are urged against the decentralized organization. On the other hand, it is urged that the training-school authorities need contact with situations representing the entire school system and that by this means the school keeps in touch with the problems it needs to know about, and its students make their beginnings in teaching in situations more like those which they will meet after appointment than is possible in a central school planned especially for the use of the training school. A further argument is based upon the value to the various schools of regular contact with some part of the training school. The greater number of training schools have endeavored to gain the advantages of both plans by combining them. Among the cities which have done so are Boston, Buffalo, Camden, Charleston, Chelsea, Chicago, Concord, Dayton, Detroit, Elizabeth, Indianapolis, New York, Pittsburgh, Philadelphia, Rochester, St. Louis, Troy, and Washington.

A corollary of this discussion has reference to the advantages and disadvantages arising from having practice rooms specially equipped, or keeping them as near the condition of ordinary classrooms as possible. There is a tendency in some cities to reduce the size of classes and to give the practice teacher some experience under more favorable conditions before entering upon the usual routine.

It is desirable that the student have experience with several grades. This is accomplished more easily in a central school where the schedule is based on this need. There is naturally more emphasis placed upon practice in primary grades, but it is possible that this is overdone and in some cases causes too many young teachers to be placed in the first grade. In some schools the practice work is done in the last quarter of the course. There is much to be said in

the fact that the classes so scattered were not supervised in any manner by the normal school. Supervision by the normal school of practice teaching is absolutely essential for two reasons: (a) to see that the principles taught in the normal school are properly applied; (b) to enable the normal school to keep in close touch with the work of the pupil-teacher in order to improve it.

Before the new normal school building is completed and ready for occupancy, there should be a reorganization of the corps of model and practice teachers, and an amended course of study. There are several other vitally important changes which I shall recommend hereafter in a special report to the board.—(Report of Newark Schools, 1910.)

favor of the plan used in St. Louis, by which the student spends the first half of the senior year in practice and then comes back to the training school to reorganize her work on the basis of the problems teaching has opened up. Where students are received in February as well as in September, this can be adjusted without difficulty.

Reports from the following cities recommend that practice work should not close the course: Baltimore, Boston, Indianapolis, Louisville, Macon, Newark, Rochester, St. Louis, Toledo, and Washington.

There is in many places an objection on the part of parents to the practice class, because it is supposed that children suffer under the conditions of its organization. The teacher in charge has much need of tact and judgment, but with reasonable conditions it has been demonstrated many times that parents can be brought to prefer classes under the charge of critic teachers. Brandon in his report on Normal Schools in Latin American countries states: "Everywhere the *escuela de aplicacion* is considered the best of the primary schools, and parents are eager to have their children admitted."

Usually the work is confined to fairly normal situations, but in Trenton opportunity is given for acquaintance with a class for troublesome pupils and another for foreign pupils.

The cost of the central elementary school as compared with other elementary schools has not been worked out, but such reports as are at hand do not show that there is much difference between them. In Jersey City the per capita cost of the model school in 1909-10 was \$33.28, as against \$29.10 in all elementary schools. In Cambridge (1911) this amounted to \$20.74, while in other grammar schools it was \$21.08, and in other primary schools \$18.11. In St. Louis (1910-11) the per capita cost in the Wyman Observation School of 20 rooms and 887 pupils was \$29.41, and in all white elementary schools it was \$29.88.

The payment for practice teaching has grown up in part from the fact that young women who become teachers are required to spend more years in preparation for that work than would be required in preparing for other occupations. In a sense, what is paid is rather a subsidy than a salary. The table on pages 145-149 shows the custom in various schools. No payment is made in Boston, Chicago, Cleveland, Jersey City, Newark, New Orleans, Pittsburgh, Philadelphia, and Washington. In those which make payment the range is from 75 cents a day in New York City through \$1 in Baltimore to \$2 in Indianapolis. Detroit pays \$50 and St. Louis \$100 for the half year. In Saginaw an allowance of \$5 a month is made for car fare during the training-school course. In Omaha \$100 is allowed for each of 20 students each year. When the class contains a larger number than 20, the added numbers are paid only during the senior year. Dr. Brandon in his work on Latin Ameri-

The State of Maryland maintains a small normal school for colored teachers, but there has been no discussion of the advisability of having the State train the teachers for Baltimore's colored schools.

In New Jersey the question of turning city schools over to the State has been raised in Jersey City and Newark, but in Trenton there are the two schools, that of the city having about one-tenth the membership of the State school.

In the report of the Jersey City school for 1910 there is a strong argument made for the transfer of the city school to the State. The following statement by the superintendent at Newark shows the problem in that city:

CITY NORMAL SCHOOLS COMPARED WITH STATE NORMAL SCHOOLS—ADVANTAGES AND DISADVANTAGES.

This topic I discussed in one of my reports to the board several years ago, at a time when the establishment of a new normal school in this section of the State was being considered. What I stated at that time I still hold to be true, namely, that each has some advantages and some disadvantages as compared with the other. Thus the State normal school has the advantage of larger outlook, since it aims to supply teachers for a larger field and to make them acceptable to a larger number of superintendents, principals, and employing boards. The disadvantage that attends this larger purpose is lack of definiteness and precision in what is taught. This is seen both in theory and practice. As a rule, it takes a State normal-school graduate a longer time to "find" herself in a city school system—or, for that matter, in a rural-school district; her knowledge is too general; it is not specific enough to meet special cases. The corrective to this is much practice work before being graduated. In case a sufficient amount of practice work can be had under proper conditions—a difficult matter for a State normal school without its independent practice schools—the State normal school need not suffer by comparison with the best city normal schools.

Again, few State normal schools are able to enforce rigidly a four years' preliminary high-school education. This is said to be done, I know. * * *

The conditions of successful work in both are:

(a) Thoroughly prepared candidates—always difficult to secure.

(b) A carefully chosen and well-paid staff of teachers; here the conditions favor ordinarily the city normal school.

(c) A curriculum that is definite and not overloaded, with time enough to complete it.

(d) Absence of pressure from any source to graduate the unworthy; or what is equally good, power to resist such pressure.

Given these conditions, I see no good reason for preferring a city-trained normal-school graduate to a State normal-school graduate, and should, as I have previously stated, be glad to see all preferences other than those based on individual efficiency abolished.

WHY SHOULD NOT THE PEOPLE OF NEWARK ASK THAT THE CITY NORMAL SCHOOL BE MADE A STATE NORMAL SCHOOL OR DEMAND, AT LEAST, THAT SOME OF THE EXPENSE OF MAINTAINING THE NORMAL SCHOOL BE BORNE BY THE STATE?

The duty of training teachers was early assumed by the State in pursuance of the theory that the maintenance of the schools is a State function. That

The schools of Indianapolis have been noted for excellence for many years. The foundations were laid by Supt. Shortridge, who selected superior teachers who went for training to Oswego and the Concord School of Philosophy, and made use of such other means of growth as were then available. These teachers brought back new life into the schools, but especially into the training school. One of the most effective means of raising and maintaining standards in Indianapolis has been by means of a fund which came to the city from an old teacher. The following statement is from the superintendent's report, 1908-9:

In 1879 the board of school commissioners came into possession of a part of the estate of Thomas D. Gregg, who at one time was a teacher in the Indianapolis public schools. In Mr. Gregg's will was the following bequest:

All the rest, residue, and remainder of my estate, of every description, real, personal, and mixed, I give, devise, and bequeath to the City of Indianapolis, in the State of Indiana, to be and remain a perpetual fund for the advancement and promotion of free schools in said city, hereby authorizing and directing the legal authorities of said city to invest said bequest in productive stocks, or put the same out on interest, and the income or interest thereon only to be expended annually for the benefit and advancement of said free schools.

The fund now amounts to \$37,000, the income of which is at present about \$1,900 a year. Since the fund became available, in 1894, the income has been used chiefly in giving teachers special training at various institutions.

Since the fund was established, upward of 150 teachers have received its benefits. These teachers usually attend summer schools. Several have received half-year scholarships at various universities. Two recipients of the fund went to Germany for study there.

Only by means of the fund were some of these teachers able to continue their studies. In almost every instance the recipients have returned to the schools with added power and renewed enthusiasm. Many recipients of the fund have become leaders in the activities of the schools.

During the past three years a part of the income has been used to pay for lectures before the entire teaching body of the city.

More recently another bequest has come from the estate of a colored teacher:

In 1896 the board came into possession of \$1,500 as a bequest of the late William T. McCoy, who was at one time a colored teacher in the Indianapolis schools. By the provisions of the bequest, the income of this fund is to be used for the benefit of the colored schools of the city. Only a part of the income has thus far been used, chiefly for scholarships in summer schools, for the purchase of lantern slides for exhibiting the work of colored schools, and for the purchase of tools for gardening.

In Minneapolis six principals and one eighth-grade teacher were sent out by the school authorities to visit and report upon the schools of New York, Omaha, St. Louis, Kansas City, Boston, Newtonville, and Springfield. Supt. Jordan writes about this experiment:

Upon their return the visitors gave their reports at a meeting of teachers and principals called for that purpose. We believe that the study of other school systems by principals of our teaching corps has been very valuable to us all in many ways. We expect to continue this work whenever possible.

What would happen if Newark and the other cities of the State were to cease maintaining their local normal schools and were to look for their supply of trained teachers to the State normal schools? A dearth of teachers would at once be felt in school districts that could not successfully meet the competition. Now, the city of Newark is supplying its own teachers wholly at its own expense, and is brought into competition with other school districts only to a relatively small extent.

The situation is one that will sooner or later receive the attention of local taxpayers, and will result, no doubt, in an effort being made to secure some kind of remedial legislation. Either the State should assume control of city normal schools, as it seems to me, or should contribute an equitable sum for their maintenance.

In 1911 the board of education of the State of Massachusetts reported on the desirability of a State normal school in or near Boston, as the schools nearest Boston (Framingham, Salem, and Bridgewater) are crowded even to a greater extent than are the other State schools. The State normal schools are free to residents of the State, but students from outside Boston must pay \$100 tuition in order to attend the city normal school. In 1910 the Boston finance commission, in a special report rendered to the mayor relative to the Boston Normal School, recommended that Boston retain control of the school and that the State be asked to contribute to its support.

In the opinion of the (State) board the Commonwealth should not contribute to the support of the Boston Normal School unless that school becomes a State institution, controlled by the State as are the present State normal schools. Only in this way can a general standard be developed and maintained and the necessary correlation of all the schools as to scope, character of work, and accessibility to residents of Massachusetts be secured. (House Doc. No. 4, January, 1912.)

In January, 1913 (House Doc. No. 421), the State board reported that it had reason to believe that the school authorities of Boston coincide in the recommendation made by the finance commission.

Under the circumstances, therefore, the board does not deem it expedient to make recommendations regarding the transfer of the Boston Normal School to the State. The board will doubtless give consideration to this subject again when the question of a new location and building for the Normal Art School is before it, and in this connection will confer with the Boston school authorities.

In the State normal school at Worcester there is a three-year course. About one-fifth of the students come from that city. In Milwaukee 160 teachers are assigned each half year to city schools for a half day's teaching for 20 weeks. In Los Angeles four city buildings are used by the State normal, and cadets are placed in other schools of the city. The critic teachers employed are paid in part by the city.

In other State normal schools the following relationships are reported: Bridgewater critics are paid in part by the State; New Britain and Fitchburg pay per capita rates for the children in the

practice schools; North Adams assigns one large elementary school to the State normal; Oswego uses elementary schools for practice; Ypsilanti Normal uses rooms in the public schools for which the city pays half; Greeley has a city school including kindergarten, elementary, and high-school sections assigned to it; St. Cloud sends each student for six weeks' teaching in the city schools, following the work in the practice school—the normal selects teachers and pays part of their salaries; San Jose has a city school for its use and the city furnishes part of the teaching force; Chico Normal has a city school set apart for it. The city of Chico pays \$3,200 a year. The normal students serve as substitutes in the city school.

STATE CONTROL.

The large city is usually in advance of the other units of a State in its requirements and salaries, so that much of the State legislation concerning schools has little effect upon it.

Returns from a questionnaire and further correspondence indicate little relation in most of the States between the city training schools and the State authorities. In answer to the question, "Does your department exercise any direct control over the work of city training schools as to funds, teachers, courses of study, examinations, the issuing or validation of certificates, etc.?" only Indiana, New Jersey, New York, and Virginia answered in the affirmative. Yet in one of the States which replied in the negative, a city superintendent informed me that in his city the training school had been closed because of the limitations imposed by the State. A more extended study would need to go into the limitations imposed by statute as well as those more immediately in the hands of the State board of education.

The lack of relationship was further shown by the fact that in several States the authorities were unable to report what cities have training schools, and even in some cases reported schools as still existing which have been closed.

It has proved to be somewhat more difficult for graduates of city schools to secure credit for their certificates when they desire to teach in other sections of the country than it has for graduates of State schools to do so. This has led at times to anomalous situations. Thus in one case a graduate of a city school was refused recognition in one of our best organized States, but was told that her certificate would be recognized if it came from the State normal school, although it was possible in the latter case to have completed the course in two years less than the time required in the city.

In the matter of certification, New York exercises the most definite control over the graduates of city schools, fixing minimum require-

A printed report was made, but the edition is exhausted.

A recent Boston school report contained an extended account of the work of the Harris Teachers' College at St. Louis, as seen by a member of the administrative force sent there on a visit.

Boston has worked out a plan for a sabbatical year, which was taken advantage of by three members of the training school corps in 1912.

Supt. Chadsey, of Detroit, is at work upon a plan whereby teachers after eight years of service may receive \$50 a month for 12 months, during which time they may visit other systems as a means of further growth.

THE CORPS OF THE TRAINING SCHOOL.

The staff of the training schools includes (1) principals, (2), "theory" teachers, (3) teachers of the arts, (4) teachers having to do with practice (see page 60), and (5) office force. The tables on pages 145-149 offer some material for consideration with reference to these various groups.

The principals in the larger schools are mostly men. With the exception of Brooklyn, no school in the list of large cities has a woman principal until New Orleans is reached (1 in 16). The administration of the Chicago College for a number of years by Dr. Ella Flagg Young should be recalled here. Of the 24 cities having more than 100,000 population, from New Orleans down, only 7 have men principals. In the 25 schools in cities of less than 100,000 inhabitants, 7 principals are men.

In 38 schools in the larger cities, 4 principals have salaries of \$5,000 and over (Chicago pays \$5,500); 4 have between \$4,000 and \$5,000; 4 between \$3,000 and \$4,000; 16 between \$2,000 and \$3,000; 9 between \$1,500 and \$2,000; and 1 has \$1,200.

In 22 cities of less than 100,000 inhabitants, 1 principal receives \$2,700; 3 from \$2,000 to \$2,200; 4 from \$1,500 to \$2,000; 7 from \$1,200 to \$1,500; 6 from \$1,000 to \$1,200; and 1 receives \$900.

The "theory" teacher has been looked upon as occupying a position superior in requirements and remuneration to that of the teacher of practice. In only two of the larger cities, Washington and Bridgeport, are the salaries of the two classes equal. In New York, Chicago, Philadelphia, St. Louis, and Boston the maximum for "theory" teachers reaches \$3,000 and above (New York, \$3,250). In none of these cities do members of the practice department receive more than \$1,850,¹ and the maximum runs as low as \$1,400.

¹ The apparent exceptions in Boston of a maximum of \$3,780 for the director of substitutes and practice teaching should not be counted, as this position is not comparable with the others under consideration.

In the other larger cities, Pittsburgh advances "theory" teachers to \$2,500; Newark to \$2,100; Detroit and Washington to \$1,800; Buffalo, Louisville, Rochester, and Columbus to \$1,500. The lowest salaries reported are Baltimore, \$700 (in the colored school), and Birmingham, \$540. The maxima in these cities are \$1,200 and \$900. Teachers having to do with practice receive in New York a maximum of \$1,850; in Washington, \$1,800; Newark, \$1,600; Chicago and Indianapolis, \$1,500; Jersey City, \$1,400; Columbus, \$1,300; Detroit, St. Paul, and Buffalo, \$1,300. Those having a maximum below \$1,000 are Baltimore, Louisville (colored), Richmond, Atlanta, and Dayton.

A report on the proportion of members of the corps having college degrees shows Dayton, Yonkers, Charleston, Evansville, Jamaica, New York, Brooklyn, Fort Wayne, Washington (colored), Elmira, and Baltimore (white and colored), having 50 per cent or over of the teachers in the "theory" department who have degrees. Newark reports that all "theory" teachers have degrees; Cleveland, all but the teachers of "special" subjects. Youngstown and St. Louis (colored) report that all have degrees in both "theory" and practice departments. In the practice department most of the schools report no college degrees. Newark alone, of the larger schools, has as high a proportion as one-third.

Per cent of teachers holding degrees.

Cities.	Theory teachers.	Practice teachers.
	<i>Per cent.</i>	<i>Per cent.</i>
Albany.....	2	1
Atlanta.....	0	0
Baltimore:		
White.....	83	0
Colored.....	50	0
Boston.....	50	0
Buffalo.....	25	0
Charleston.....	50	0
Cleveland.....	100	0
Columbus.....	33	25
Concord.....	0	0
Dayton.....	50	0
Elmira.....	50	0
Evansville.....	50	0
Fall River.....	25	0
Fort Wayne.....	50	0
Indianapolis.....	30	8
Jamaica.....	50	0
New Orleans.....	22	0
Newark.....	100	33
New York.....	90	5
Philadelphia.....	45	2
Richmond.....	33	0
Rochester.....	43	19
St. Louis (colored).....	100	100
Trenton.....	33	0
Washington:		
White.....	33	25
Colored.....	50	0
Watertown.....	0	0
Yonkers.....	75	0
Youngstown.....	100	100

¹ All except special.

Following is a statement of the number of periods each week in which "theory" teachers are occupied with classes. The varying organization of schools makes these figures of little conclusive value, but they are suggestive at least.

Periods each week in which theory teachers are occupied with classes.

Albany -----	24	Dayton -----	25	Philadelphia -----	16-22
Atlanta -----	25	Elmira -----	15	Richmond -----	30
Baltimore -----	17	Evansville -----	20	Rochester -----	15-20
Boston -----	16	Fall River -----	20-24	St. Louis: Colored ---	25
Buffalo -----	10	Fort Wayne -----	20	Washington:	
Charleston -----	25	Indianapolis -----	12	White -----	25
Cleveland -----	15-18	Jamaica -----	17	Colored -----	20
Columbus -----	20	Newark -----	20	Youngstown -----	22
Concord -----	All	New York -----	15-20		

The ratio of teachers to students varies greatly in the various training schools. In one city a school is overstaffed, while in another city a larger school has to get along with a much smaller force of teachers.

No attempt is made to discuss the work of the teachers of the arts. In Chicago a special building with a strong staff cares for these departments. At the other extreme are the small cities and unfortunately some of the large cities in which this work is cared for by the already overworked supervisors of special subjects for the whole city.

The office work in city training schools still falls largely upon the principals and teachers. Only two schools in cities having less than 100,000 population report any provision for clerical assistance and in the cities of over 100,000 inhabitants not more than half are furnished librarians and clerks. The table on pages 145-149 furnishes detailed information on this subject. It is not uncommon in large schools to find high-salaried teachers working regularly on rolls and lists and taking charge of the listing and distributing of books and supplies.

A new standard is indicated by developments in New York City following the inquiry made by Dr. Hanus and his associates under the direction of the board of estimate.

PUBLICATIONS AND OTHER CONTRIBUTIONS.

When the city training school is tested from the standpoint of productive scholarship, it has little positive evidence to offer. The conditions have been and are in few cases favorable to experimentation, research, or publication. Heavy schedules on the part of both students and teachers, the negative results of the inbreeding system, the immediacy of city course of study demands, and the lack of largeness

of view in city school planning have told heavily on these schools in a department in which they could have rendered valuable service. They are usually denied even the simple announcement and course of study circulars, which serve not only to maintain the circulation of State institutions, but also to give to members of a school corps the jolt in thinking that comes with the preparation of copy for the printer. The connection between the school and its prospective members in the high school is so immediate that there is little occasion for the circularizing which is utilized elsewhere by large-minded executives for other purposes.

Whatever record appears is usually confined to a few pages incorporated in the report of the city superintendent, in which there is little opportunity for any extended statement of issues, needs, and policies.

Chicago and Cleveland are instances of cities which publish a general circular giving a fair amount of information concerning the schools, but in most cities there is practically no material printed whereby the training school can be judged and its work compared with what is done elsewhere. Even syllabi of courses are not easily accessible. Some of the reports made by special examiners indicate that those which are found are not kept up to date. This is apt to be the case where revision depends upon hand copying, and the limited amount of clerical assistance reduces the possibilities of manifolding, while, without a special appropriation, printed outlines are less common in schools in which students expect to receive books and material free than they are in those in which they are printed for sale.

Not much editing of texts is done in the city training schools, nor do many articles appear in the educational journals by members of their faculties. The *Educational Bi-Monthly*, edited by the corps of the Chicago Training College, is a notable exception, but, unfortunately, the present municipal methods of publication prevent any subscription arrangement, and there is a consequent lack of influence upon the other communities and help from them. A great service to the training of teachers would be made at little expense by allowing this journal to have a wider circulation upon the foundation its use in the city assures.

UNIVERSITY CREDIT FOR TRAINING SCHOOL WORK.

The demands of immediacy upon the training school have given arguments to the conservative university authorities against granting credit for work done. A few subjects, such as psychology, have the best academic standing, while those dealing with the elementary

school curriculum, and especially with practice teaching, are most definitely discredited. Even the man who has had the good fortune to see a course in observation and practice teaching made a means of rare discipline and growth through problem work, realizes the narrowness of apprenticeship required in many situations. Our terminology is not clear. There is no doubt of the place of elementary, secondary, and higher schools in general, but in many cities the administration of the training school offers practical difficulties because its status is not determined. Preparation for elementary teaching keeps it close to that department, and the shortness and limitation of its course keeps it from recognition as a higher school. Dr. MacLean, in his report on "Present Standards of Higher Education in the United States,"¹ concerns himself with theology, medicine, law, engineering, dentistry, pharmacy, fine arts, and music, but makes no reference to normal schools.

The Carnegie Foundation report for 1912 (pp. 114-115) gives some data regarding credits given by various universities for work done in normal schools.

While State normal schools have had difficulty in making adjustment with degree-giving institutions, their relationship to State universities, where these exist, has led to fairly liberal conditions.² in general, the entrance standards of city training schools can more easily be held up to a higher standard than can those of some of the State schools, but the matter of credit in higher schools offers special problems. The courses of city normals are probably more utilitarian even than those of State schools. This is due in part to the greater evenness of entrance preparation, and in large part to the limitations arising from sending the greater number of graduates into a single field.

The authorities of city schools do not usually recognize the value of further training for their teachers. The acquiring of a degree by an elementary teacher usually means seeking for a position in a higher school. This will continue as long as elementary salaries continue at the bottom of the list. In few cases has any systematic effort been made to articulate the training course with that of any degree-giving institution.

¹ U. S. Bureau of Education, Bull. No. 4, 1913.

² The State of Oregon has published an official definition of a standard normal school, as follows:

"By a standard normal school is meant a school meeting the following requirements—

"(a) For entrance, four years' work above the eighth grade in a secondary school.

"(b) For graduation, two years' additional work, including a thorough review of the common branches and training in a practical school.

"(c) The maintenance of a well-equipped training school for observation and practice, such school to cover work in the eight elementary grades.

"(d) The total attendance in the secondary school and in the normal school shall be 216 weeks above the eighth grade: *Provided*, That any normal school may accept satisfactory credits covering 20 weeks above the eighth grade."

At St. Louis this problem has been considered, as the following quotation from an announcement will show:

The board of education at its meeting October 12, 1909, provided that a part of the work of the Teachers College shall hereafter be organized and unified into courses of study which shall be equivalent in training and culture value to the first three years of the customary university courses which lead to the B. S., B. A., or Ed. B. degree. The object of the board in making this provision was to open the way for any ambitious and energetic teacher in the elementary schools who may desire to do so to obtain a college education and thus fit herself for a larger and better work in the public schools. This may now be done at very little expense to the teacher herself.

An inquiry sent to several of the universities to which students go from the city training schools shows a variety of adjustments. The University of Missouri allows two years' credit on the three-year course at Harris Teachers College. Washington University, at St. Louis, answers:

No credit except as a subject of college rank or a fair equivalent for a college subject is studied in the training school. A secondary school subject taught in a secondary school manner brings no credits.

There are six students from the college in attendance upon Washington University. A provisional agreement has been made whereby students having completed the three years' course are admitted to the junior class deficient in but six credits. If a student is earnest and has reasonable ability, he or she may complete the course and obtain the A. B. degree in two years.

In Philadelphia, the University of Pennsylvania allows to normal-school graduates from 6 to 24 units. In 1912, students from the Girls' Normal School of Philadelphia received $14\frac{1}{2}$ units, which was the number allowed to normal schools whose courses require four years of secondary school preparation. The School of Pedagogy (for boys) has a more definitely academic course, and for this 22 to 24 units of credit were allowed. (A unit is one hour of work per week for the academic year.) Temple University has a course leading to the degree of bachelor of science in education. The School of Pedagogy receives full credit for two years (30 units). The Girls' Normal School receives 17 units credit and the State normals from 15 to 20 units.

At Chicago, it is stated:

If courses are well selected and are such as are accredited in the curriculum of the University of Chicago toward any of its degrees, credit is allowed at a rate not to exceed 8 majors for each year spent in the training school.

This applies only to the better class of schools. Many students are enrolled from the schools in Chicago, Indianapolis, St. Louis, and Cleveland.

At Northwestern University, 52 to 56 semester hours' credit is allowed, out of a total requirement for two years of 60 credits. A

semester of satisfactory work in the university is required before any credit is given.

In New York City, Teachers College has been more liberal than many institutions, and care has been taken to do full justice in the matter of credits, determining each case, however, on its merits. New York University allows two years' credit to schools approved by the New York State department of education. The training schools in New York City and in New Jersey receive full credit.

Adelphi College allows to city schools 34 points out of 120 for the degree of A. B. This same amount is given to State schools. A plan is under discussion for a closer articulation of courses, which will permit one and a half years' credit.

Boston University accredits the normal school of that city with 4 units for psychology and 17 for education.

At Cleveland the Western Reserve University college for women gives one year of credit.

The Pittsburgh Training School is a new institution, and its relations to the University of Pittsburgh have not been fully determined. It is hoped that two full years of credit will be given.

George Washington University allows one year of credit to graduates of the Washington school. Howard University (colored) gives no credit.

These are official statements and individual cases can be found which show variation. The least encouragement comes from the old-line universities and from the women's colleges. The latter grew up in the days when the issue between the classical course and others was at its height. The desire to be successfully established did not lead to a liberal attitude toward other than the old courses; so that the women's colleges have done little to lead normal-school graduates to degree courses unless they were willing to sacrifice the two years spent in the training course. Howard University (colored) at Washington has had similar reasons for the attitude it has maintained.

It will be seen from the preceding statement that the graduates of the schools in most of the large cities are able to make arrangements whereby in from two to three years they are able to secure a university degree without going away from home. When, however, this is not possible, as in Baltimore, there is a constant drain upon the teaching force caused by the resignation of teachers who wish to secure positions near cities in which there are more liberal conditions. In Baltimore there is a first-class woman's college (Goucher), but no articulation of courses is permitted. Extension courses, duplicating work in the institutions, are given under the joint direction of Goucher College and Johns Hopkins University, but it requires several years of attendance to obtain credit toward a degree. The

result is that a graduate of the training school who wishes to take a degree on the basis of the two years' course must leave the State to accomplish this end.

MUNICIPAL HIGHER EDUCATION.

The city training school is the most definite undertaking by American municipalities of educational responsibilities beyond the high-school period. Chicago and St. Louis have used the name "teachers' college" to designate these institutions, and New York has established a college of wider scope for each sex. Cincinnati has a municipal university controlled by a board of trustees appointed by the mayor.

The beginnings of the University of Cincinnati came from a bequest. In 1911 the endowment had grown to \$765,473.44. In the same year the income from the city amounted to \$140,610.98 from a tax levy made by the city council, plus \$10,200 paid by the board of education for the training of teachers. The tuition fee is \$75. There are colleges of engineering, medicine, and education; also a graduate school. Of 696 students in the college of liberal arts, only 144 came from outside the city, while of the entire membership of 1,331 students, 980 were from the home city. In other Ohio colleges 107 Cincinnati students were registered and 138 in other colleges in the East and in the Middle West. The president estimates that at least 1,000 of 1,115 Cincinnati students in the undergraduate college could not get a college education if this university did not exist. A study of the occupations of fathers and of family incomes and rents tends to confirm the claims made.

The college for teachers was formally organized in 1905. It was, to quote from a statement by Dean Burris—

the first fruits of a general policy formulated by the president for a municipal university conceived as an instrument of the highest service to every important phase of the city's welfare.

About half the graduates in the college of liberal arts take the teacher's course; there were 33 who finished this course in 1911.

The following statement is taken from the report of the superintendent of public schools:

The elementary teachers are required to take the regular university course for the first three years, and during the fourth year do sufficient work in the college for teachers to constitute at least 24 out of 30 possible units. They also are required to spend their Saturday mornings with the supervisors of the city teachers of the schools in getting their training in art, physical training, and penmanship. Their total work, therefore, is equivalent to a full year of training added to the regular bachelor of arts' course of the university. These students are required to teach for 10 weeks in practice work in addition to 40 preliminary practice lessons, which are criticized by the faculty of the

college of teachers. The faculty of the college is employed by the board of education. The course for the training of teachers is prescribed also by the board of education. The candidates for teaching are arranged in the order of their merit, and after appointment are closely supervised by the same faculty for the first year, and supervision is continued indefinitely thereafter.

Beginning in 1903, a preferred list was established of those who were college graduates with pedagogical training. These teachers have an initial salary of \$600, an advance of \$150 over that paid to others. The maximum of \$1,000 is reached by annual increments of \$50 each. Very few teachers who are not college graduates are appointed in the elementary schools. The dean writes:

Graduates of other institutions having our standards are rated and placed on a merit list with our own graduates. During recent years 71 per cent, on the average, have been our graduates. Indications are that we shall soon have more graduates than vacancies in the local schools. In that event we contemplate having first and second preferred merit tests, the former to constitute all those who have had more advanced preparation than that now required for the preferred list.

The College of the City of New York was organized as a free academy in 1848. In 1854 it was given authority to confer degrees and in 1866 became a college. The city board of education was formerly the board of trustees, but in 1900 a separate board of nine members appointed by the mayor was constituted. The president of the board of education is ex officio a member.

All the work in the department of education is elective, but courses are given which prepare for the college graduate professional certificate of the State of New York and for the city superintendent's examination for license to teach in elementary schools. Dr. Duggan, head of the department of education, writes as follows:

The College of the City of New York furnishes the great majority of the male teachers to the elementary schools, and a considerable proportion of the male teachers in the high schools of New York City. For the former it provides courses in the history of education, principles of education, school management and administration, methods of teaching, and special methods in music and drawing. For the latter, there is a special course on secondary education. In both cases observation of classroom practice makes up part of the work. In the case of the teachers preparing for secondary schools, practice teaching in our own high school here, Townsend Harris Hall, is one of the most essential features. This practice is done in the presence of a critic teacher who meets the young men in the afternoon and criticizes their work.

Extension courses are given to improve the scholarship and efficiency of the teachers already in the school system. This year there are about three thousand teachers attending the courses. All these courses are registered with the regents at Albany, and receive credit toward higher licenses at the board of education in the city.

Hunter College, formerly called the Normal College of the City of New York, was established February 1, 1870, and received its

charter from the State in 1888. Thomas Hunter, LL. D., was its first president. It is a college for women and grants the degree of A. B. upon the satisfactory completion of a four years' course of study. It is supported by the city of New York, with annual appropriations, that for 1912 being approximately \$400,000. Tuition and textbooks are furnished without charge. Students must be residents of the city.

Admissions and graduations are made twice a year. Candidates for admission must present 15 units. The curriculum is arranged according to the elective group system and provides strong optional courses in education for those students who desire to enter the profession of teaching in either secondary or elementary schools. The equipment of the college is being renewed; and new buildings are being erected at a cost of \$2,500,000. The students number about 1,250. The teaching staff comprises 13 professors, 14 associate and assistant professors, and 71 instructors. A high school and an elementary school, which are distinct and separate organizations from the college, serve as model and practice schools for students intending to teach.

George Samler Davis, LL. D., is the president.

In the announcement of the college for 1912,¹ the following statement shows the judgment of the institution with reference to its graduates:

So successful have our students been in this phase of our work, that, although the college is organized in all respects as a college of liberal culture, it is proving itself to be the most efficient source of training for teachers in our city schools.

Supt. Maxwell furnishes the following statement, which shows the proportion of teachers appointed from the various municipal institutions to the city service during the year ending June 30, 1912:

Number of nominations.....	1, 568
Graduates, New York City Training School for Teachers.....	1, 009
Graduates, New York City Normal College.....	218
Graduates, College of the City of New York.....	140
Graduates of institutions other than the above.....	167
Nominations on experience.....	34
	<hr/>
	1, 568

The distinction between certain formal and established courses for the college period and the newer movements to provide some form of suitable schooling for those adults who wish it is not made clear. We need some term to cover the later developments. A representative of the Carnegie foundation objects to the use of the term "higher

¹ New York Normal College, 1912, p. 11.

education" in referring to the work of training schools. The same lack of definition is no doubt in part responsible for the tendency deplored in the foundation's report of 1912—"the effort of the normal school in many States to transform itself into an arts college."

New York and Los Angeles are carrying on many forms of popular education for adults, which can be included under the somewhat loose term "municipal higher education." Some special courses for municipal employees have been given in New York and Cincinnati. Boston has done pioneer work in a much needed field by establishing evening classes for school janitors. The courses given relate to the subject of fuel, including its kinds, distribution, the principles governing its combustion, and the operation of various types of heating and power plants with economy and efficiency. The instruction is given by recognized experts in the employ of the board of school-house commissioners and of the school committee, and is being pursued by some 50 school janitors. The class meets two evenings each week during the evening school term and will have 29 lessons.

A plan is under consideration for the establishment of what will practically be a training school for janitors, in that new men on entering the service will be placed under the direction and supervision of experienced men, who will instruct them in the details of their work, and thus fit them to handle efficiently the various types of heating apparatus installed in school buildings.

The late Mayor Gaynor's proposed program for New York City, article 2, read: "Developing a plan for and organizing a training school for probationary policemen."

It is surprising how little material on the subject of education is found in the many publications on municipal matters. Consultation of several of the largest libraries and correspondence with many of the leading experts failed to reveal any considerable number of references.

There is some tendency to charge this defect, in part at least, to the desire to keep school affairs, as far as possible, in a compartment separate in control from other municipal interests. There seem to be few exceptions among school men as to the desirability of this dualism, but it is possible that the advantages that come from it have been dearly paid for.

In "A Municipal Program," prepared by the National Municipal League (Macmillan, 1900, p. 171), the following significant statement appears:

It is well to bear in mind, however, that the independence of the school administration has diverted from the city government some of the best energies of the community. By making this department a branch of the city government, the interest in the general affairs of the municipality and in the character of the candidates for the council will be greatly increased.

The question whether or not elementary education should be vested in the hands of a distinct school government operating within the same territorial

limits as the municipal corporation is one upon which it would not be wise, perhaps, to enter in this paper. If the course of our educational history had not, as a matter of fact, in most parts of the United States, as well as in England, differentiated public-school administration in a more or less complete fashion, it is probable that the students of municipal and local administration would think it altogether best for symmetrical local progress if all branches of local governmental administration were reduced to a single unified and symmetrical system, and this is the opinion of the committee (p. 71).

The tendency toward a commission form of municipal government¹ has been studied to find what consideration is given to educational readjustment. While undoubtedly, in time, there will be great pressure here also in favor of change, at present the dualism tends to leave the schools on one side while the other controls are reconstructed. This may prove to have disadvantages in the long run. Dr. Goodnow, in *City Government in the United States*, is one of the few who sees the problem of relationship. His objection to the movement appears as follows:

The school board is succumbing to the same influence that destroyed the city council, and in time there will be a school department with a single commissioner at its head, having toward the school department about the same powers and duties that the single commissioner or other executive has toward his department. Reduced in numbers, in some cases composed of salaried members, its educational functions lost to the superintendent, its executive functions going to a director, the school board will not have enough to do to attract men who are interested in the schools and will soon come to occupy, if the movement keeps on at the same pace, a position of as little influence as that which has been accorded to the city council by the charters of many of our cities.

In European countries that form of university which looks for support to a municipality or other local government has had better opportunity for development than it has had in America. In Germany, among the newer universities of this type, are Hamburg and Frankfurt. Leipzig is an older instance. In England are found the Universities of London, Birmingham, Liverpool, Bristol, Manchester, Leeds, and others carried forward or aided by county and municipal authorities. Other cases are found in Belgium, Russia, and other countries in which city grants are an important factor. In such cities as Melbourne, Sydney, Wellington, and Auckland are universities supported by private endowments, but receiving assistance from the cities and closely connected with the city life.

The separation of control has tended to affect the training of teachers and possibly to retard municipal responsibility for training its employees in other departments of the city service. In Germany there are beginnings of a larger inclusion. On October 30, 1911, in

¹ "Questions relating to the general efficiency of school systems were prepared [in the 10 cities studied], but were not used, except in Houston, for elsewhere the board of education is entirely separate from the city government. In Houston the board is responsible only to the mayor, and not to the board of commissioners. In the other cities surveyed school administration had not been directly influenced by the commission movement."

Dusseldorf there was opened a college for municipal officers and those intending to enter municipal service. It may seem Utopian to look forward to a time when those who plan to be teachers will have a part of their training at least in the same classes with men and women who will serve in other city departments, but there would be some large gains in such a scheme, even though the task of carrying it out offers many difficulties.

STATE NORMAL SCHOOLS AND STATE DEPARTMENTS OF EDUCATION.

Special mention should be made of the eight large cities with no city training schools which have State normal schools so accessible that young people preparing to teach in these cities can live at home and receive their preparation in the State schools. These cities are San Francisco, Milwaukee, Los Angeles, Providence, Oakland, Worcester, New Haven, and Lowell. Of these cities, San Francisco, Milwaukee, New Haven, and Lowell at one time had schools of their own, but have given them up and thrown the responsibility for training their teachers upon the State.

In most cases the city has no definite relation to the State school, except to receive its graduates into teaching positions. In Providence, however, a close affiliation has been worked out which seems to meet the interests of both parties. About half the students in the State school have residence in Providence. The course is practically two and one-half years. Salary on appointment is \$400, rising to a maximum of \$750 to \$900. The agreement between the trustees of the Rhode Island Normal School and the school committee of the city provides, among other things:

It is expressly understood and agreed that no critic teacher shall be continued in charge of any such training school if her work is unsatisfactory either to said trustees or to said superintendent.

It is further understood and agreed that if the work of any such teacher in training is unsatisfactory to said trustees they may remove such teacher in training and substitute some one else in her place, and that if, in the opinion of said superintendent, the work of any such teacher in training is so unsatisfactory as to be injurious to the school, said trustees will withdraw such teacher in training at the request of said superintendent.

Such critic teachers shall be chosen by said trustees with the approval of said superintendent, to serve as such critic teachers for such training schools. Critic teachers so chosen shall receive their entire salary and pay from the city of Providence, the same to be not less than their present salaries.

The said trustees shall allow to the city of Providence for the services of each such critic teacher, as follows:

For the first year of service in primary or grammar grades, \$200.

For the second year of service in primary or grammar grades, \$250.

For the third and subsequent years of service in primary grades, \$300.

For the third year of service in grammar grades, \$300.

For the fourth year of service in grammar grades, \$350.

For the fifth and subsequent years of service in grammar grades, \$400.

All allowances for services of such critic teachers shall be made by the said trustees at the close of each quarter of the school year at the rates aforesaid, and proportionally for any less period of service, the amount due and payable for such service to be credited upon and deducted from the bills or accounts of the said trustees against the said school committee for the tuition of pupils in the Rhode Island Normal School building under that contract between the parties hereto made and entered into September 5, A. D. 1900.

Said teachers in training shall not be entitled to receive any salary from said city of Providence for their services in said training schools.

All of such training schools so maintained at the joint expense of city and State shall at all times be open to the inspection of said trustees and their authorized agents and of the members of the said school committee and their authorized agents.

Either party to this agreement may terminate it at the end of any school year by giving six months' notice in writing of its intention to so terminate the contract.

This agreement shall take the place of the existing arrangement and agreement between said trustees and said school committee for the maintenance of State training schools in school buildings belonging to the city of Providence, all of which existing arrangements and agreements shall this day terminate.

The principal reason why the cities have established their own schools has been that the machinery provided by the State has not been equal to meeting the needs of the entire State. Thus in Pennsylvania 1,400 teachers were graduated in a year from 13 State normal schools, yet in 1908 but one-sixth of the teachers of the State were normal trained, and in one city employing 333 teachers there was but 1 normal graduate.

Baltimore has both city training schools and a State normal school, although the latter is now removing to a location outside the city limits. There has been some discussion of the desirability of merging the city school for training white teachers into the State institution. In the report of the board of school commissioners for 1911 the following statement appears:

One of the most important questions to be considered in connection with a system of education is that of providing a competent body of teachers. Recognizing this fact, the State of Maryland, in 1865, authorized the establishment of a training school for teachers, and in 1866 the State Normal School was opened in Baltimore City. This institution has been with us for more than 40 years, and the greater part of the expenses attending it are borne by the taxpayers, yet our city schools have received comparatively few teachers from among its graduates.

As the State has under consideration the advisability of changing the location of the school, which will carry with it the cost of erecting new buildings, the board, deeming it the proper time, appointed a committee to confer with the State authorities as to the feasibility of designing and equipping the new school for the work of training teachers for the public schools of the entire State.

In Chicago there has arisen, through the interest of old students, a celebration called "Chicago Teachers' Day." President Sumner, of the alumni association, writes:

In answer to your letter of May 16, I will say that the alumni association of the Chicago Normal School has been in existence 45 years. In the beginning it consisted of alumni from Col. Parker's normal school and met with him and his faculty annually in June, in a great tent on the school campus. That school has since become the training college for Chicago's teachers. The membership now consists of about 5,000 men and women, most of whom are employed in Chicago's public and private schools. The superintendent, some district superintendents, many principals and supervisors are members, while quite a few of the faculty of the school of education of the University of Chicago belong to the association. Other members are scattered from New England to California, one even being located in Australia.

Until five years ago our annual meetings were purely social affairs, consisting of a banquet and an address by some prominent educator. But as the normal school is now a place for training teachers for this city, we have been developing along the line of service to the city schools.

We have an annual meeting, but now call it Teachers' Day and invite every teacher in all the public, parochial, and private schools to attend. The meeting is held at the Chicago Normal College, and we invite certain schools throughout the city which have done excellent work in certain lines to present that work on Teachers' Day. The normal school and its practice schools also give examples of their work. This with a number of line exhibits given at the same time is the alumni association's contribution toward the advancement of education in our city.

The school for men at Philadelphia organized an association in 1894. There are now 259 members. The special activities are (1) a series of round tables held each year as an especial help to the younger grade teachers among the members; (2) the presentation of a \$10 gold medal to the member of the graduating class of the School of Pedagogy writing the best essay on a pedagogical subject; (3) the circularizing, by means of a letter, of the graduating classes in the higher schools of Philadelphia relative to the opportunities offered in the School of Pedagogy; (4) the holding of one business meeting and one educational meeting a year, at the latter of which it is customary to have as speakers prominent educators of Philadelphia and the vicinity.

SOCIAL AND ECONOMIC STATUS OF 1,776 TRAINING-SCHOOL STUDENTS.

The most important study of the social groups included among the teachers in American schools has been made by Dr. L. D. Coffman.¹ The following quotations from his excellent study will present some

¹ "The Social Composition of the Teaching Population." By L. D. Coffman, Columbia University Contributions to Education, Teachers' College Series No. 41, 1911.

important aspects of the situation as he finds it among the teachers who have come from rural into city schools.

In light of these facts the following fundamental conclusions are defensible: (1) The teaching force is being recruited from large families—probably the most fecund element of our total population; (2) the transmission of our best culture is turned over to a group of least favored and cultured, because of its economic station; (3) even considering that those who enter teaching are the best from these prolific families, they represent on the whole an unmarried group which does not perpetuate itself. In other words, the intellectual possessions of the race are by rather unconscious selection left to a class of people who by social and economic station, as well as by training, are not eminently fitted for their transmission (p. 70).

The typical American female teacher is 24 years of age, having entered teaching in the early part of her nineteenth year when she had received but four years' training beyond the elementary schools. Her salary at her present age is \$485 a year. She is native born of native-born parents, both of whom speak the English language. When she entered teaching both of her parents were living and had an annual income of approximately \$800, which they were compelled to use to support themselves and their four or five children. The young woman early found the pressure, both real and anticipated, to earn her own way very heavy. As teaching was regarded as a highly respectable calling, and as the transfer from the schoolroom as a student to it as a teacher was but a step, she decided upon teaching.

Her first experience as a teacher was gotten in the rural school, where she remained but two years. If she went from there to a town school, her promotion was based almost solely upon her experience, as no additional training was required by the officials of the town. If she desired to teach in a city school, she was compelled to secure at least one more year of training in all; but each additional year of training she found increased her salary.

So far she has profited each year of her brief experience by having her salary increased, and this will probably be true for the next two years should she find it necessary to remain in teaching that long.

Into the hands of teachers who more or less nearly conform to the above description is given the duty of transmitting the culture of the race to the youth of the land, of training them in habits of thinking, in modes of behavior, in methods of work, and in intelligent appreciations. Some of the unanswered questions are: What initiative and resourcefulness have such teachers? What perspective due to thorough preparation have they secured? What vision of the possibilities of the calling do they possess? What modicum do they add to our professional inheritance? What chance has the average American boy or girl of being wisely and intelligently educated by the average American teacher, male or female? (P. 80.)

Dr. Coffman's study has little reference to those city teachers who have not come into the city service from smaller communities. In studying the social composition of the membership of city training schools, in addition to inquiries with reference to the occupations of fathers and mothers, information has been secured about the occupations of brothers and sisters. It is believed that this material concerning the contemporaneous generation ought to have special value.

In all, 1,776 cases have been reported from 25 cities.

Reports as to social conditions of membership of city training schools.

Cities.	Cases.	Cities.	Cases.	Cities.	Cases.
Akron.....	20	Dayton.....	42	Richmond.....	21
Albany.....	29	Elmira.....	11	St. Louis (colored).....	28
Atlanta.....	22	Erle.....	15	Trenton.....	49
Baltimore:		Evansville.....	22	Washington:	
White.....	126	Fall River.....	45	White.....	158
Colored.....	29	Fort Wayne.....	15	Colored.....	95
Buffalo.....	36	Indianapolis.....	50	Watertown.....	24
Charleston.....	21	Newark.....	27	Youngstown.....	15
Cleveland.....	155	New Orleans.....	115	Yonkers.....	26
Concord (N. H.).....	11	Philadelphia.....	569		

Deducting 52 cases in which two members of the same family are in the schools, there are data from 1,724 families, including 1,365 fathers, 1,411 mothers, 4,514 brothers and sisters, and 1,776 training-school students; a total of 9,066. There were 114 reports in two lots in which no reference was made to the parents. Allowing for these, there are returns for 85 per cent of the fathers and 87 per cent of the mothers.

The classification used by the Thirteenth Census of the United States, as given in its index to occupations, has been used as a basis. Some modifications and additions have been found advisable.

Probably the results, as given in the accompanying tables, indicate a somewhat higher social condition than the actual facts would represent. In some cases it may be that individuals classed as storekeepers, for instance, may have been clerks, although great care has been given to organize the data as represented in the papers sent in.

The largest single item which can not be reduced further is that of mothers reported to be housekeepers (1,181). Of the total number of living mothers (1,411), only 91 are reported in occupations taking them outside the home. Many of the 139 mothers reported at leisure are probably housekeepers. With the 1,181 mothers who are housekeepers should be considered the 470 sisters in the same occupation. Many of these are in homes of their own, and others are in the homes of their parents.

The number of sisters and brothers reported at leisure is 209. Probably the greater number of these are young women. This is a little over 3 per cent of the total number of children in the families, a smaller proportion than would be expected. There are in attendance upon one or another type of school 1,832 brothers and sisters, not including the 1,776 cases studied. There are 103 in colleges and universities representing literary and arts courses, law, medicine, theology, etc. In elementary schools there are 957, and in high schools 658. The total number of cases of training-school students is only 161 more than the total number of brothers and sisters in elementary and secondary schools.

Only 52 brothers and sisters are reported in attendance upon normal schools, and but 312 are teachers. The number of parents who are teachers (36) seems very small. Another item which is less than would be expected is that of brothers and sisters under 6 years of age (118), about equally divided at $3\frac{1}{2}$ years.

A large number of the students at State normal schools come from farms. Naturally the number in city schools would be small, but a total of 39 (fathers 24, brothers 15) concerned with farm, garden, dairy, etc., is surprisingly small.

The number reported in one form or another of service (33 brothers and sisters and 47 fathers and mothers) is slightly increased by the inclusion of the members of two colored schools.

The miscellaneous group of men includes nearly all who can claim connection with the professional classes. Even including 6 brothers and 1 father, who are college instructors, there are less than 100 brothers and about the same number of fathers who belong to these groups. The largest group is that of fathers in the ministry and in social work. Teaching is evidently no longer the main resource of ministers' daughters.

Government service is increased by the inclusion of the city of Washington. The largest numbers, given in their respective order according to size, are in the various departments of the national service, the post office, and the city police.

A comparison of the three tables showing the occupations of fathers, brothers, and sisters, collectively, and fathers, brothers, and sisters, separately, shows the trades leading among fathers and clerical work leading among brothers and sisters. More than two-fifths of the latter group and more than one-third of all are in the class including clerks, stenographers, cashiers, bookkeepers, and agents. As would be expected, not more than one-fifth of the fathers are in this group. More than one-fourth of the fathers are in trades, as are one-fifth of the brothers and sisters. The manufacturers, contractors, builders, and storekeepers include nearly a fourth of the fathers and a twelfth of the brothers and sisters. The teachers among the fathers and mothers are a negligible group, but those actually in teaching service compose one-sixth of the brothers and sisters in the various occupations. Government service enlists one-tenth of the fathers and one-thirtieth of the brothers and sisters.

The more detailed lists show that storekeepers make up nearly three-fourths of the proprietary group. Clerks form nearly half of the clerical and agent group. In so far as classification of clerks was given, a larger proportion of fathers are in stores and of brothers and sisters in offices.

Of the trades, engineers, machinists, dressmakers, and plumbers lead in both sections. Draftsmen, milliners, electricians, and printers

include more brothers and sisters; while more fathers are carpenters, tailors, and painters.

Answers to definite inquiries with reference to the social status of teachers and the social groups to which they belong were not forthcoming. The superintendent of one large southern city writes: "Teachers here are usually of a very high class. As a rule they stand very high socially."

In England there is a feeling that the change from a pupil-teacher system with early remuneration on the basis of little or no preparation to a longer preparation with deferred remuneration has brought in an improved class of teachers from a cultural standpoint. On the other hand, the withdrawal of members of poorer families from candidacy has reduced the number of applicants to such an extent that there is alarm lest the supply be insufficient.

The wide social range of families from which the young women preparing to teach in our large cities come is significant from the standpoint of democracy. But as the demands for more cultural work in the elementary schools increase, the opportunities for other occupations than school-teaching also increase, and naturally those young women of the best ability and background soonest break into the new fields. There are many openings which require college training. Among these is teaching in high schools. A study of the social status of the families of high-school teachers would be interesting for comparison with the results here presented.

The enlargement of opportunity for young men has practically removed them from the elementary schools of America. In England the scarcity of men candidates is apparent. Even in other European countries where women are at present confined to certain of the lower grades in schools for boys, the problem is evident, and plans have been made for opening higher grades when this change becomes necessary.

Neither by payment for practice teaching nor by bursarships and student teacherships has the supply been kept up to the demand. It is only a matter of time when more than the present requirement of two years' preparation beyond the high school will be made. Cincinnati has already, by its preferred-list plan, succeeded in taking this step. For several years on a maximum salary of only \$1,000 a year nearly all of its new elementary teachers have been college graduates. Reasonable standards of maturity and experience, and the increasing demands made on the elementary school by society, will move rapidly in this direction. Naturally the first advances are made in the larger cities, and there is need of extended studies on which to base an adequate policy. No country is meeting the need on as high a plane as it is conducting military defense.

The economic questions at issue are many and involved. More money will have to be spent on schools, but much of this increased

expenditure will be wasted until we have learned how to spend much more than we are spending upon the training of teachers. A large number of the teachers in our city schools have raised their social status by entering this work. The payment made for their services is in many cases more than the young teachers would receive in other positions. It is usual for a person who may be a mediocre or poor worker in his own occupation to compare himself with the more successful members of other groups, and as the result of this comparison he feels great dissatisfaction with his own income. Elementary schools can not make the progress the times demand without the wise expenditure of much more money than is now spent, but one of the first steps toward the necessary larger investment will be the recognition that the average young woman within two years of the high school is not ready to meet the large responsibilities elementary education places upon the teacher.

In his Introduction to Economics, Dr. Seager states:

In practice capital invested in training affords a very high return, because so many of those who might benefit most from training are too poor to obtain it. * * * Unless the earnings in the industry requiring specific preparation promise to be large enough to repay them for the investment, they will not make it.

The demand for increased maturity and experience is deeply concerned, in the case of women, with the issues now pending in certain cities with reference to the relation to teaching of married women and especially of the mothers of children.

Occupations of members of families of training-school students.

Classified list of occupations. ¹	Fathers.	Mothers.	Brothers and sisters.	Total.
(A) Proprietary, official, supervisory, and clerical positions as—				
Owners, operators, and proprietors (manufacturers, etc.).	324	12	151	487
Managers and superintendents.....	31	.....	33	64
Foremen and overseers (bosses).....	30	2	17	49
Accountants (auditors), cashiers, bookkeepers.....	47	3	120	170
Clerks.....	92	7	332	431
Stenographers, secretaries.....	7	2	190	199
Agents (traveling salesmen: Insurance, real estate, etc.).	126	.....	75	201
(B) Trades.....	363	30	375	768
(C) Service (maid, cook, porter, etc.).....	39	9	33	81
(D) Other occupations (laborers, drivers, etc.).....	55	.....	73	128
(E) Government service.....	118	4	62	184
(F) Farming, etc.....	23	1	15	39
(G) Teaching.....	21	15	312	348
(H) Miscellaneous.....	89	6	97	192
(I) Leisure.....	.....	139	209	348
(J) Housekeeping.....	.....	1,181	470	1,651
(K) At school.....	.....	.....	1,832	1,832
(L) Aged 6 years or under.....	.....	.....	118	118
	1,365	1,411	4,514	7,290
Training school students.....				1,776
Total membership of 1,724 families.....				9,066
Counted twice.....				52
Net.....				9,014

¹ Thirteenth Census of the United States, Index to Occupations, p. v.

Occupations of members of families of training-school students—Continued.

Occupations.	Brothers and sisters.	Fathers and mothers.	Total.
(A) Proprietary, official, supervisory, and clerical:			
Owners, operators and proprietors—			
Bankers.....	6	4	10
Brewers.....	1	1	1
Manufacturers.....	16	45	61
Contractors and builders.....	14	42	56
Brokers.....	5	11	16
Storekeepers, dealers, etc.....	110	233	343
Managers and superintendents.....	33	31	64
Foremen and overseers.....	17	32	49
Accountants, auditors, bookkeepers, cashiers.....	120	50	170
Clerks—			
Store.....	68	41	109
Office.....	85	19	104
Unclassified.....	179	39	218
Stenographers.....	165	2	167
Secretaries.....	25	7	32
Agents—			
Unclassified.....	75	38	113
Manager.....		20	20
Inspector.....		9	9
Traveling salesman.....		24	24
Insurance.....		15	15
Real estate.....		15	15
Buyers.....		5	5
(B) Trades:			
Unclassified.....	111	196	307
Machinists.....	33	21	54
Engineers.....	44	57	101
Mechanics.....	6	3	9
Plumbers.....	25	14	39
Draftsmen.....	32		32
Carpenters.....	14	35	49
Printers.....	15		15
Electricians.....	21		21
Painters.....		19	19
Tailors.....		17	17
Nurses.....	14	3	17
Dressmakers and seamstresses.....	37	24	61
Millinery.....	23	4	27
(C) Service (maids, cooks, porters, etc.).....	33	48	81
(D) Other occupations (laborers, drivers, etc.).....	73	55	128
(E) Government service:			
United States—			
Mail.....	18	27	45
Army and Navy.....	10		10
Unclassified.....	19	63	82
State.....	4	5	9
City—			
Police.....	6	18	24
Unclassified.....	5	9	14
(F) Farming (gardeners, dairymen).....	15	24	39
(G) Teaching—			
Unclassified.....	294	31	325
Music.....	12		12
College.....	6	1	7
Principals.....		4	4
(H) Miscellaneous:			
Ministers, priests, nurses (4), missionaries, social workers, evangelists...	13	30	43
Lawyers.....	12	20	32
Physicians.....	19	17	36
Dentists.....	5	4	9
Opticians.....	3	1	4
Architects.....	4	3	7
Authors.....	1	1	2
Newspaper men, publishers, etc.....	15	8	23
Experts (dynamite, wool, water).....	1	2	3
Music and stage.....	13	3	16
Landscape gardeners and florists.....		3	3
Inventors.....		3	3
Librarians.....	11		11
(I) At leisure.....	209	139	348
(J) Housekeeping.....	470	1,181	1,651
(K) At school (1,832):			
College and university (law, theology, medicine, arts, etc.).....	103		
Normal schools.....	52		
High schools.....	658		
Elementary schools.....	957		
Apprentices and at trade schools.....	10		
Nurses.....	3		
Music.....	4		

Occupations of members of families of training-school students—Continued.

Occupations.	Brothers and sisters.	Fathers and mothers.	Total.
(K) At school (1,832)—Continued.			
Art.....	5	.....	.....
Missionary.....	2	.....	.....
Business colleges.....	30	.....	.....
Unclassified.....	8	.....	1,832
(L) Aged 3½ to 6.....	58	.....	58
Aged 3 and under.....	60	.....	60
Total.....	4,514	2,776	7,290
Brothers and sisters (including training school students) at school:			
Normal and training school.....	1,776	.....	.....
Elementary school.....	957	.....	.....
High school.....	658	.....	.....
College and university.....	103	.....	.....
Business college.....	30	.....	.....
Miscellaneous.....	32	.....	.....

Occupations of fathers.

Occupations.	Number.	Per cent.
In trades.....	363	27
Manufacturers, contractors, builders, storekeepers, etc.....	324	24
Cashiers, bookkeepers, clerks, stenographers, agents.....	272	20
In Government service.....	118	9
Managers, superintendents, foremen, overseers.....	61	4
Laborers, drivers, etc.....	55	4
Miscellaneous.....	89	7
In service.....	39	3
Farmers.....	23	2
Teachers.....	21	2

Occupations of mothers.

Occupations.	Number.	Per cent.
Housekeepers.....	1,181	84
At leisure.....	139	10
In trades (dressmakers, millinery, tailors).....	30	2
Teachers.....	15	1
Proprietors of stores, etc.....	12	1
In service.....	9	.....
Clerks.....	7	.....
In Government service.....	4	.....
Nurses.....	3	.....
Missionaries, church, and social workers.....	3	.....
Bookkeepers.....	3	.....
Stenographers and secretaries.....	2	.....
Forewomen and overseers.....	2	.....
Farmers.....	1	.....

Occupations of brothers and sisters, excluding housekeepers, those at leisure, at school, and aged 6 years and under.

Occupations.	Number.	Per cent.
Cashiers, bookkeepers, clerks, stenographers, agents.....	717	38
In trades.....	375	20
Teachers.....	312	17
Storekeepers, manufacturers, etc.....	151	8
Laborers, drivers, etc.....	73	4
In Government service.....	62	3
Managers, superintendents, foremen, overseers.....	50	3
In service.....	33	2
Miscellaneous.....	97	5

Occupations of fathers, mothers, brothers, and sisters, excluding housekeepers, those at leisure, at school, and aged 6 and under.

Occupations.	Number.	Per cent.
Cashiers, bookkeepers, clerks, stenographers, agents.....	1,001	31
In trades.....	768	24
Manufacturers, storekeepers, etc.....	487	15
Teachers.....	348	10
In Government service.....	184	5
Laborers, drivers, etc.....	128	4
Managers, superintendents, foremen, overseers.....	113	3
In service.....	81	2
Miscellaneous.....	192	6

Place in family of 1,776 training-school students.

Place in family.	Number of cases.	Per cent.
Oldest.....	687	39
Second.....	408	23
Third.....	295	16
Fourth.....	157	9
Fifth.....	103	6
Sixth.....	73	7
Seventh.....	32	
Eighth.....	9	
Ninth.....	8	
Tenth.....	3	
Eleventh.....	1	
Whole number.....	1,776	100
Only child.....		12
Youngest.....		25

Size of 1,714 families.

Children in family.	Number of families.	Children in family.	Number of families.
1.....	221	8.....	22
2.....	381	9.....	14
3.....	357	10.....	5
4.....	334	11.....	3
5.....	241	12.....	2
6.....	87	Total.....	1,714
7.....	47		

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APPENDIX A.

List of cities with over 100,000 population having city training schools.

Albany, N. Y.	Columbus, Ohio.	Omaha, Nebr.
Atlanta, Ga.	Dayton, Ohio.	Paterson, N. J.
Baltimore, Md.	Detroit, Mich.	Philadelphia, Pa.
Birmingham, Ala.	Fall River, Mass.	Pittsburgh, Pa.
Boston, Mass.	Indianapolis, Ind.	Richmond, Va.
Bridgeport, Conn.	Jersey City, N. J.	Rochester, N. Y.
Buffalo, N. Y.	Kansas City, Mo.	St. Louis, Mo.
Cambridge, Mass.	Louisville, Ky.	St. Paul, Minn.
Chicago, Ill.	Newark, N. J.	Syracuse, N. Y.
Cincinnati, Ohio.	New Orleans, La.	Toledo, Ohio.
Cleveland, Ohio.	New York, N. Y.	Washington, D. C.

List of cities with over 100,000 population having no training schools.

Denver, Colo.	Minneapolis, Minn.	Scranton, Pa.
Grand Rapids, Mich.	Nashville, Tenn.	Seattle, Wash.
Memphis, Tenn.	Portland, Oreg.	Spokane, Wash.

APPENDIX B.

List of cities with over 100,000 population where State normal schools are located.

Los Angeles, Cal.	New Haven, Conn.	Worcester, Mass.
Lowell, Mass.	Providence, R. I.	
Milwaukee, Wis.	San Francisco, Cal.	

APPENDIX C.

THE NORMAL ARTS AND GYMNASIUM BUILDING OF THE CHICAGO NORMAL SCHOOL.

The board of education of the city of Chicago is carrying out the policy inaugurated about a decade ago of supplying the Chicago Normal School with a material equipment in the way of buildings that leaves little to be desired. The latest action of the board is to appropriate three-quarters of a million dollars for a high-school building to be placed on the grounds. During the present

school year the Normal Arts and Gymnasium Building, begun in the autumn of 1912, will be completed, furnished, and equipped. In 1905, when the present college building was dedicated, it was thought that provision had been made for the needs of the school for years to come. The changes in our educational procedure since that time, particularly in the direction of emphasizing school hygiene, the arts, and industrial education, have led to the erection of the new building, which is designed to house the four departments of industrial arts, household arts, art, and physical education. The cost of the building is upward of \$450,000; of the equipment, somewhat under \$150,000.

DEPARTMENT OF INDUSTRIAL ARTS.

The college, upon the completion of the arts and gymnasium building, will be prepared, through the cooperation of its several departments with that of the department of industrial arts, to give training to students and workmen, as follows:

I. *Professional training* to those who desire to teach in—

- (a) Elementary and high-school shops.
- (b) Trade schools.

Candidates for such training may be chosen from—

- (1) Graduates of technical high schools.
- (2) Students from departments of architecture and engineering in colleges.
- (3) Teachers with more or less technical training.

Two courses are open to those selected from the above groups: (1) A two years' elementary-certificate course, admitting to elementary shops. (2) A four years' course admitting to technical high and trade schools.

The two and four year courses may be worked out on the basis of three-fifths time for mechanical drawing, shopwork, and practice teaching; and two-fifths time for literature, mathematics, science, and education.

Candidates for elementary certificates will be required to teach classes in shopwork in the elementary practice school. Those taking the four-years' course must take charge of classes in the shops of the practice high school.

Courses are planned covering the lines usually taught in the public schools. These include the woodworking group, involving carpentry, cabinet and pattern making, forge foundry and machine-shop group, electrical construction, together with jewelry making and printing.

Courses in lettering and mechanical drawing supplement all shop courses. Engraving and photography are required in connection with printing and book-binding.

All shop courses involving design are under the direction of two instructors; one representing the design side, the other the construction. Controlled by this idea design rooms have been placed side by side with shops from floor to floor.

II. *Trade training* in carpentry, cabinet and pattern making, forge, foundry, and machine-shop practice, electrical construction, and printing.

Classes may be formed of half-time apprentices, boys from shops, boys from elementary and high schools. Three-year courses are outlined for those registering for the trades. The school day of eight hours—8 to 5—makes it necessary to plan half time for shop and half time for academic work.

Night-school classes make it possible for men in the trades, and boys serving as apprentices, to advance more rapidly along their given lines or to work into entirely new fields without loss of time.

III. *Continuation classes* for boys from the elementary and high schools.

These classes offer opportunities for pupils to make up work lost in one way or another.

To gain advance credit.

To work toward a trade without interfering with regular school work.

The range of activities that can be arranged in continuation classes is that of the public-school curriculum.

The college, together with its art and industrial school, its elementary and high-practice schools, offers great possibilities of advancement for the school boy, the apprentice, and the tradesman.

DEPARTMENT OF HOUSEHOLD ARTS.

The new building affords unlimited possibilities for the training of teachers in household arts for the public schools in Chicago. This training is to be as broad as it can be made.

The educational world is waking up to the fact that it is economy in education to take into account the physical needs of the child. Fresh air, water, and food are now recognized prerequisites to effective mental work. Chicago has been among the first to recognize this fact and to take steps toward meeting this problem. The schools have introduced household arts courses in both elementary and high schools; and this work in training children in the preparation of food and clothing, together with their economic and physiological values, has increased very rapidly. At present there are over 125 teachers in the city, where a few years ago there were but 20, and the department at the normal school has grown to meet this increasing demand.

The actual feeding of children in penny luncheons, open-air school and lunch-rooms, has been undertaken by women's clubs and concessions. The household arts department at the normal school hopes to prove that it is a practical and economic undertaking for the schools to take over this other phase of the work, and as a step in this direction the penny luncheon at the Haines Practice School is to be under the direction of the department. The dietetic class, consisting of university graduates, will plan the diet, and this will necessitate a careful study of foods, not only as to calorific value, but as to mineral content, which is now recognized as an important element in child nutrition. The students in practice teaching will devote one-half day a week to assisting with the actual serving of the luncheons, credit being given toward their practice teaching.

This new venture means a broadening out of the work in this department, and we hope that the next step, which will be the undertaking of the running of the lunchroom in the new high school, will demand courses which will adequately prepare teachers to meet all phases of the work in the public schools.

THE DEPARTMENT OF ART.

Manufacturers the world over are keenly aware of the need for art in their products. The art schools and the schools of industrial arts of other countries have been more prompt to recognize this need in planning and equipping their institutions than we in America have been.

In the Normal Arts and Gymnasium Building the studios and designing rooms are distributed throughout the building from ground to roof, so as to bring the art work into the closest possible relation to the various industries which are so constantly an embodiment of it. On the third floor of the building are grouped those studios in which more specialized art study will be carried on.

In addition to the workrooms, a well-equipped industrial museum is being established, where both modern and historical types of industrial products having artistic character will be on view. It is planned in this museum to lay especial stress upon the application of art in modern every-day products, in its most democratic applications. These exhibits will be arranged in frequently-changing groups and will be interspersed occasionally with collections of works of fine art.

Among the richest possibilities for service the art department is planning a library of pictures. These pictures, suitably framed and ready for hanging, will be available for school and home decoration and will be loaned for 30-day periods. If the experiment proves successful, the collection will be expanded so as to include ultimately all available examples of contemporary and classical art.

A figure drawing-room sufficiently large so that running and other actions can be carried on before the classes is a part of the equipment, which will also include a complete pottery laboratory and a sculpture studio.

To meet the most typical of needs a five-room apartment has been included in the building. The art department's use of this will consist in making it a laboratory for experiments in interior decoration.

THE PHYSICAL EDUCATION DEPARTMENT.

The gymnasium proper, 197 by 60 feet, is divisible by drop curtains into two or three rooms as may be found necessary for simultaneous class work; while on the other hand it may be opened to its full size for use as the social center of the college and normal school. Near by, also on the ground floor, is the swimming pool, reflecting from its shining white tile the bright skylight, the water of the pool being constantly clarified by filtration and overflow. Ample provision for bathing and privacy in dressing for the students is found in the 100 showers and dressing rooms, which will always stand as a memorial to those who are willing to plan for an ideal, intensive work, unlimited in its possibilities for hygiene, health, and happiness. The physical education classrooms and instructors' offices, the medical suite, and the rest room are situated on the first floor, thus providing geographically the easiest and quickest accessibility for students from the gymnasium as well as from either college building. The equipment of the department has been planned with a view to carrying on (1) the college and normal work as heretofore, (2) the training of specialists in physical education, and (3) evening classes for social and educational training. A special "exercise room" in the medical suite is to be fitted up with corrective apparatus, where orthopedic cases may receive attention and help in working out individual prescriptions.

It is well-nigh impossible in a short summary to mention all those niceties of construction and equipment upon which considerable time and thought have been spent. Suffice it to say that whether in arrangements for hair drying or the disinfecting and clarifying of the pool water, an effort has been made to use only modern "efficiency methods."

APPENDIX D.

OBSERVATION AND PARTICIPATION IN THE BOSTON NORMAL SCHOOL.

The model school connected with the Boston Normal School is used primarily for observation by first-year students, although it offers opportunities for other work in connection with the study of method in the second year of the normal-school course and the practice in the third year. The Martin Grammar School and the (Farragut) primary school connected with it constitute the model school, so called, and represent a typical Boston school district. The number of pupils to a teacher is the same as in other public schools in the city, and in nearly every way the school is subject to the regulations as to course of study and methods of administration that govern other schools. The teachers, who are the best that can be obtained from the city schools, are paid \$8 a month in addition to the regular salary of their respective ranks, and the school was this year granted \$400 in addition to its per capita allowance for equipment and supplies.

In its operation the school is independent of the normal school, and its policies are determined by a director, who acts as principal of the Martin and Farragut Schools and is nominally head of a department in the normal school and a member of its faculty, although at the present time he does no teaching in the normal school. Since no instruction in methods of teaching is given during the first year of the normal-school course, the observation work of this year is intended to give students a general survey of the field of elementary education rather than specific methods in teaching different subjects.

Briefly stated, the aim of first-year observation is to furnish students with a broad range of ideas concerning the fundamental principles involved in teaching and to give opportunities for contact with individuals and groups of children in as many ways as possible in order that they may have a background of (mental) experience to which they can refer in their later study and practice in the second and third year of the normal-school course.

This is accomplished in two ways:

A. Observation of work as carried on by teachers in the model school, followed by conference with these teachers or with the director of the model school.

B. Combined observation and participation.

The nature of the work carried on is described below under these two heads.

OBSERVATION OF WORK CARRIED ON BY TEACHERS IN THE MODEL SCHOOL.

Students visit the school in divisions of 20, and are generally divided into groups of 10 for observation. This arrangement is carried out one period a week for 36 weeks; 80 students visit the school one period each week in groups of 20 on four successive days; and as each group is generally divided into two parts, only two rooms a day are under observation.

For the first three weeks, students observe in Grade I; the next three in either II or III; next in either IV, V, or VI; and next in VII or VIII. When 12 weeks have passed, the same course is followed again, but the kindergarten is included in the first period. Another series of 12 observations completes the year's work.

Generally speaking, the students who visit Grade IV in the first series are assigned to Grade V in the second series and Grade VI in the third series, and so on; so that every student observes all grades in the course of the year and sees the progressive development of three or four important subjects through four grades, excepting, of course, that in the kindergarten and first grade the differentiation of subject matter has not been carried very far.

In each visit a variety of activities may be observed, but the school program of the rooms under observation is reorganized for the three weeks when students are present, so that students give chief attention to subjects as follows:

Series I—12 weeks—English.

Series II—12 weeks—Arithmetic.

Series III—12 weeks—History and geography.

This observation occurs during the first period in the morning and students report 15 minutes before the opening of the session. During this time they are brought into direct contact with the children as much as possible, and nearly always watch individual children or help them in work that they are doing before school. The daily correction and discussion of the diaries of children in the third grade is an example of the kind of work thus carried on outside of the regularly arranged subjects for observation. The teachers frequently use part of this time for talks with the students, and both the teachers and the director try in every way to have the students feel at home in the schoolroom and get into the spirit of friendly professional relationship with everyone.

There is little, if any, departure from the regular plan of work in the model school when students are observing excepting the change of time before mentioned.

Since the director is present for a portion of the time at nearly all the periods of observation, his conferences are largely an outgrowth of the particular activities occurring in each room from day to day; but frequent conferences with teachers on all phases of the work, with particular reference to the interpretation of general principles, have given rise to a unity of purpose and a common understanding, so that it is possible for the director to organize the material at hand in a fairly clear and coherent manner in his conferences with students.

Take, for example, the second series of observation, dealing primarily with arithmetic, and including the kindergarten. The outlines given below show the nature of discussion carried on with students in conference after observation in the grades designated in each case.

It will be noted: (1) That the influence of the kindergarten or the development of the individual along the lines of natural interests are generally dwelt upon; (2) that attention is called to the growth of power in oral or written expression (the chief subject of the first 12 weeks of observation); and (3) that stress is laid on points observed in arithmetic.

Students are asked to give illustrations of the different points from their recollection and from notes taken in class. At the end of this series (12 weeks) students write a paper discussing any single lesson or series of lessons, so as to show that they understand the significance of the three elements summed up in the outline headed "General conference on arithmetic."

These outlines are not presented as final. They represent the development of a point of view that has grown out of the work of the school, and include such ideas as seem to have been within the reach of first-year students and likely to aid them to a thoughtful consideration of their later work. At best a formal outline can only suggest the nature of the discussion.

The memorandum on page 136 illustrates the nature of instructions issued to teachers, though it should be understood that suggestions of this sort are much better conveyed in personal conferences from day to day.

OUTLINES OF CONFERENCES.

I. KINDERGARTEN.

1. Play a universal form of activity—
 - (a) With young animals.
 - (b) With children.
2. Reason for and meaning of education through play.
 - (a) Active participation and original personal effort are always characteristic of play.
 - (b) Kindergarten activities result in adjustment to environment of varied character: Size, color, form, number, weight, etc.; animate and inanimate things; human activities and social usages.
3. Individual development a result of natural adjustment.
 - (a) Development of initiative through reasonable freedom from artificial restraint, exercise of individual choice, opportunity for individual expression.
 - (b) Danger of too much unregulated individual freedom.
4. Social development the result of the right kind of individual development; significance of the idea of social development.

II. FIRST GRADE.

1. Underlying principles of kindergarten maintained to some extent in Grade 1—
 - (a) games, etc., (b) songs, (c) story telling, (d) dramatization, (e) constructive activities.
2. Beginning of conventional class work.
3. Reading: (Review of previous discussion.)
 - (a) Originates from story telling and repetition.
 - (b) Deals with sentences and words as wholes.
 - (c) Supplemented by study of sounds of letters and phonograms.
 - (d) Aims always to express complete thought in a natural manner.
4. Number:
 - (a) Origin of number ideas.
 - (b) Number combinations learned by manipulating objective material in great variety.
 - (c) Addition, subtraction, multiplication not taught as separate processes (by tables), but the number facts are grasped.

III. SECOND AND THIRD GRADES.

1. Evidences of adaptation of school program and methods to life of children.
2. Development of reading and language abilities (comparison with stage of development earlier in year).
3. The teaching of number.

(a) GRADE II.

Learning about number combinations. Number facts and relations associated directly with objective material.

- (1) Numbers dealt with serially; variety of material.

- (a) Number stories with sticks, cubes, square inches, circular tablets, chalk, pencils, buttons, etc.

- (b) Number stories using, for example, 18 children:

9 groups of 2; 6 groups of 3; 2 groups of 9; 3 groups of 6; 10 and 8; 21 less 3. (Responsibility of whole number and of each group.

- (c) Number stories expressed on board by drawing number groups of objects, lines, circles, etc.
- (2) The way opened for formal addition, subtraction, multiplication, division. (Recognition of necessary facts.)
- (3) Work with figures.

(b) GRADE III.

Facility in number combinations.

- (1) Familiarity with tables as such.
- (2) Oral work in multiplication; division.
- (3) Written work in addition, subtraction, multiplication, short division.
- (4) Informal recognition of fractional relation. (Objective.)
- (5) Drill work—kinds.
- (6) Application of number to measurements of length, area, weight, money value.
- (7) Original number stories. (Should be a natural growth from early stories and constructive work.)

IV. GENERAL CONFERENCE ON ARITHMETIC.

(A) Acquisition of ideas about number and number relations.

- 1. Use of objects; kind; variety.
- 2. Use of lines, surfaces, volumes, having common unit of measure.
- 3. Use of representations, drawings, folded paper.
- 4. Use of symbols; their meaning.
- 5. The figure as an expression of a number idea.

(B) Drill in the use of figures and processes.

- 1. Aim: Formation of habit.
- 2. Drill in the fundamental operations and processes.
 - (a) (Grades II and III.) Addition, subtraction.
 - (b) (Grade III.) The tables.
 - (c) (Grades IV, V, VI.) Extension of drill work, and its application to fractions and decimals.
 - (d) (Grades VII and VIII.) Extension of drill work with special reference to percentage relations.
- 3. The organization and motivation of drill.
- 4. Speed and accuracy. (A discussion of relative values.)

(C) Application of arithmetical knowledge.

- 1. Just as all ideas of number originate from objects and magnitudes, so the use of these ideas terminates in their appropriate application to concrete situations involving number relations.
- 2. Problem work:
 - (a) Its increasing scope throughout the grades.
 - (b) The relation of the problem to the child's experience. (Store problems.)
 - (c) The original problem; its significance.
 - (d) Work in actual measurement.
 - (e) Drawing to scale; construction.
 - (f) Explanation of the problem. (Avoid so-called formal explanation with its language difficulties.)
- 3. The final aim of work in application.
 - (a) Adjustment to actual environment.
 - (b) The production of "social efficiency."

Teach children to *know* in order that they may *use* knowledge.

SUGGESTIONS TO TEACHERS, GRADES IV, V, AND VI.

1. *Natural interests of children.*

Consideration for these ought to be in evidence incidentally in many forms of school work and in the recreation periods, as well as in the regular class work. Teacher can suggest specific ways in which she considers these interests, in addition to any that the students have an opportunity to observe.

2. *Oral and written expression.*

A few moments devoted to recitation, story-telling, personal narration, or reproduction of stories read will serve to keep in mind some of the aims sought and the development accomplished in silent reading and oral expression. Some interesting compositions may be examined.

3. *Teaching of arithmetic.*

(a) Figure work to illustrate processes taught and facility gained in whatever stage of development children have reached. Oral and written abstract work to show nature and quality of performance. Review and new work both desirable.

(b) Practice with addition drill sheets and Thompson drill sheets with chance for individual drill, this being the only way to discover and eliminate individual faults.

(c) Problem work, both assigned by teacher and devised by pupils. Any process well understood by children should soon find expression in their original problems, stated, solved, and criticized by the children themselves.

(d) Special work in measurement in which application is made of tables learned and involving whole numbers and fractional relations, the aim being to show that we teach children to know in order that they may apply.

These suggestions are intended to be applied within the field of actual work in each grade. Teachers may well consult Smith's *Teaching of Arithmetic* and Suzzalo's *Teaching of Primary Arithmetic* for illuminating suggestions. Teachers in Grade IV will probably emphasize the long-division process and the approach to and development of formal work with simple fractions for process work; in Grade V decimal notation and processes; in Grade VI the formal application of fractional operations; but there is no fixed demand upon the teacher to depart from progressive work with the class merely for the sake of illustration.

All forms of work require such frequent review and application that it is believed to be possible to interpret practically all the above-mentioned ideas in the period of observation.

COMBINED OBSERVATION AND PARTICIPATION.

One hour a week nominally is devoted to this phase of work, although some of this time is given for written work, as students are allowed no outside time for that purpose. One hour is taken also for each of the following selected exercises with groups of children:

1. A walk in Fenway Park in October.
2. Bulb planting in November.
3. Preparation of dramatization.
4. Seed planting (when time allows).
5. An outdoor arithmetic lesson.
6. A walk in Fenway Park in April or May.

These special exercises will be referred to later.

The first hour in the afternoon (the last hour in the normal school program) is given to combined observation and participation. Students are assigned in

pairs to 10 rooms each day four days a week, each one of the 80 students visiting the school once a week. At first they are given very little to do, except in assisting the teacher in small duties or helping individual children; but after one or two visits they begin to conduct some of the easier exercises, such as a spelling or writing lesson, dictation, gymnastics, and review drills. The purpose of this work is to give each student a chance to face the class, to learn how to speak with ease and clearness, and to come easily into the necessary relations of room management. Gradually the students are given a wider opportunity. A story is told, a poem read and talked over with the children, and sometimes a regular lesson is taught in some subject in which the student is particularly interested. No attempt is made to give definite training in "method," because the purpose of the exercise is to establish simply a natural and easy relationship with the class through the medium of a subject that is well enough understood to enable the student to express herself without undue restraint and to begin to appreciate from experience some of the requisites which may or may not be present in her conduct of the exercise attempted.

This work invariably results in a quickened interest in observation and a better comprehension of what constitutes good teaching. A vague question or an ineffective illustration, a tone of voice that does not carry to all parts of the room; these defects and others, generally noted by the student herself, awaken her to the need of careful study of the child's mind, careful preparation of the lesson, and vigorous personal effort. On the other hand, if she succeeds in holding the attention and stimulating the interest of a class of children, she comes away from the experience with a new sense of power and a new interest in her work. The pupils in the school have a decided spirit of cooperation, and it is seldom that they fail to assist the beginner in every possible way.

In about half of the participation exercises students are allowed to work with small groups of pupils, either giving lessons in reading in the lower grades or helping individual children in arithmetic or in the correction of written work.

The assignment of these exercises is left to the discretion of the teacher, influenced to some extent by the student's choice and special adaptability. Their chief value lies in the fact that they are not formal imitations of copyings of a "model" lesson, but are intended, so far as possible, to bring students into such relations with the pupils as will best enable them to observe and study the working of children's minds under the conditions described. This is believed by the director of the school to be the natural mode of approach to teaching.

This procedure is based on the belief that teaching is and always will be more of an art than a science; that the establishment of personal mental relationships based on an informal study of individuals and groups, and supplemented by limited experience with whole classes, is the proper introduction and incentive to the study of the scientific side of education; and that exercises of the character above described furnish ample opportunity for self-examination and stimulate a desire for the study of educational psychology and special method. There is certainly some appreciation of "method," and there is much that associates with the study of psychology, but the formal study of neither of these things is sought. The purpose is rather to enable the student to pursue certain definite aims under conditions that stimulate the study of individual children and at the same time accustom her to some of the necessary restraints and formalities that are, for the present at least, a necessary accompaniment to the teaching and management of large numbers of children in the schoolroom.

While the room teacher frequently offers suggestion and advice, it is generally understood that it shall be encouraging rather than too critical, and the student is rated on her power of adaptability and self-expression rather than her mastery of any formal instructions.

SPECIAL EXERCISES.

The autumn walk in Fenway Park, the bulb planting, the sowing of seeds, and the walk in the springtime are all managed so as to emphasize not any set methods conducting such exercises, but the underlying principle that makes them valuable.

Children are naturally interested in all forms of life, but nature lessons presented in the schoolroom frequently result in little or no real stimulus or development of this natural interest. The chief value of these exercises lies in the active participation of children in securing the end sought, and there must be present on the part of the teacher a real enthusiasm and interest that enables her to meet her pupils on the level of a common interest.

The walk in the autumn aims to establish an appreciation of the approaching period of dormant life in nature. Any or all of the following conditions may form subjects of conversation and objects of observation:

- (1) The scattering of seeds and their protection.
- (2) The falling of leaves and the formation of dormant buds.
- (3) The migration of birds.
- (4) The metamorphosis of insects.

If later on the interest aroused results in further inquiries by the children which can be satisfied by more careful study and discussion of specimens in the classroom, the purpose of the excursion will have been realized.

The same spirit animates the other exercises. In every case each student has charge of from three to five pupils. A brief report is made by the student, and children are encouraged to write the story of what they have seen and done. This gives students a chance to see how much (or little) the children have really got as a result of their efforts, and furnishes them with their first opportunity to help children organize their ideas. So there is developed the conception of an exercise in written language based on a mutual experience; and the correction and discussion of the results bring students face to face with some of the problems of securing correct form and orderly thought in oral and written expression.

Besides all this, students have an excellent chance to see what children are like out of school, and to enter into much more natural relations with them than they are apt to acquire in the schoolroom. It is believed that the kind of contact thus established is of the greatest possible value in its influence on the point of view that the young teacher adopts in her later relations with pupils.

In the bulb-planting project four students are joined with the same number of children chosen from all rooms in the school. The soil is prepared, and bulbs are planted in 8-inch and 10-inch bulb pots. Their habit of growth is explained, and the bulbs are put away (generally in a pit out of doors). In December they are distributed among the rooms, and their development is watched with interest and satisfaction by all concerned. In this way about a thousand bulbs are brought to bloom in the darkest and dreariest part of the year. The different varieties of Narcissus are most used, and their beautiful blossoms are the chief attraction and decoration of the schoolrooms for several weeks in January and February.

The arithmetic field lesson requires a brief description because of its significant influence on all teaching which involves measurement.

Each student is assigned to a group of three pupils. She provides a stout cord 1 rod long, marked off in yards. One of the children brings a foot rule. A distance is selected for measurement, and each member of the group records a preliminary estimate. It is then measured and the result recorded. The idea of measuring by pacing the distance is then developed. The length of each one's pace is determined by pacing a measured distance several times and the result recorded. The next distance selected is first estimated, then paced, and lastly exactly measured. In the course of this exercise it is easy to see that several practical examples in multiplication, division, and reduction may arise. The real significance and relation of inches, feet, yards, and rods begin to become matters of interest. In the higher grades the scope of the exercise is extended to include areas. An interesting field of experience is opened up, and the foundation is laid for useful application of facts learned. It not infrequently happens that some of the children are keener than the students themselves in judging distances. The whole exercise stimulates keen interest and attention, and results in definite satisfaction and growth of power.

ACTIVITIES OF THE SCHOOL.

In addition to the activities designed especially for the training of students, it is the purpose of the school to be responsive to a broad range of educational ideas and to work out some practical problems in education each year. It is not an "experimental" school and can not be so under present conditions; nor is it a "model" school in the sense of being a perfect school. In many ways it is difficult to secure more than average results in school work, owing to the location and equipment of the building, the school population, and other conditions outside of administrative control. It is believed, however, that any good school should do some work of an experimental character, that it should have some definite constructive aims, and that its teachers should be animated by a spirit of professional study. In these respects and in others that pertain to progressive school management and practice, the school maintains a standard of effort that may well serve as an example for students in the normal school and others interested in education. Three general lines of effort have characterized the work of the past year:

1. Work in connection with standard measurements of school efficiency.
2. Dramatization in connection with reading and literature.
3. Special projects with classes and groups of children.

1. Standard measurements.

(a) *English.*—The Courtis tests in English have been given in all grades above the third, largely for the purpose of determining their value for practical use. The nature of these tests, the fact that they were new to teachers and children, and the character and amount of correction and computation required in connection with them, made this a task of really tremendous difficulty to carry on, in addition to the regular work. The tabulations of results from these tests were analyzed, and a report is being prepared for the school department chiefly for the purpose of presenting an estimate of the value of these particular tests and some suggestions as to the kind of English tests that may be wisely undertaken.

(b) *Arithmetic.*—The Courtis tests in arithmetic have been given for two successive years by normal-school students, under direction of a department in the normal school. This year an attempt has been made by the model school to

improve the performance of pupils in the four fundamental operations in arithmetic by means of practice sheets similar to the Courtis tests, but presented and used in a manner suited to drill rather than simply to testing of ability. These sheets were printed and distributed at cost to other schools in the city and elsewhere. Nearly 350,000 of them were used in Boston, Cambridge, Fall River, Lawrence, Newton, Everett, New Bedford, and other places. The same forms will be issued again next year. They have proved to be valuable for the purpose intended, especially when used as directed in connection with the individual score sheet designed to accompany them. There are 16 sheets of addition combinations and 8 sheets each of subtraction, multiplication, and division. Information concerning these may be had by addressing the director of the model school.

(c) *Reading list on standard measurements.*—The following books and pamphlets have been added to the school library this year, and a list of them has been distributed to large numbers of teachers and principals with a view to encouraging reading and study of available sources. Some of these books are valuable in this connection only in small part, but all have been found to contain matter of considerable usefulness either of an elementary or advanced character.

READING LIST.

Russell Sage Foundation publications:

Bulletin E 126. The Spelling Vocabularies or Personal and Business Letters.

A Scale for Measuring the Quality of Handwriting of School Children. L. P. Ayres.

Bulletin No. 113. Department of Child Hygiene.

Scientific Management in Education. J. M. Rice.

Teachers College publications:

Contribution to Education, No. 48.

Handwriting. E. L. Thorndike.

Scale in Handwriting. E. L. Thorndike.

A Scale for the Measurement of Quality in English Composition. M. B. Hillegas.

Arithmetical Abilities and Some Factors Determining Them. C. W. Stone.

Spelling Ability. B. R. Buckingham.

Stevens—The Question.

Experimental Studies in Kindergarten Education.

Kindergarten Problems. J. A. MacVannell-Hill.

Teachers College Record. Educational Surveys and Vocational Guidance.

Teachers College Record. Comparative Experimental Teaching in Spelling.

The Curriculum of the Horace Mann Elementary School.

The Speyer School Curriculum.

Special Method in Reading for the Grades. McMurry.

The Examination of School Children. Pyle.

The Psychology and Pedagogy of Reading. Huey.

Reading. Branson.

Reading. Hall.

Reading. Laing.

How We Think. Dewey.

The Teaching of Arithmetic. Smith.

The Teaching of Primary Arithmetic. Suzzallo.

The Third Yearbook of the National Society for the Scientific Study of Education—Part I.

Manual of Mental and Physical Tests. G. M. Whipple.

Report of Committee of National Council of Education on Standard Tests for Measuring Efficiency of Schools or Systems of Schools. U. S. Bureau of Education Bulletin, No. 521. Washington, D. C.

The Binet-Simon Measuring Scale for Intelligence: Some Criticisms and Suggestions. L. P. Ayres.

The Futility of the Spelling Grind. Rice. Forum, April—June, 1897.

Report of Committee on School Inquiry. New York City. Part II, Subdivision 1, Section D.

Spelling in the Elementary School, 1902. Cornman.

The Effect of Practice in the Case of a Purely Intellectual Function. Thorndyke. American Journal of Psychology, XIX, 374–384.

Spelling. Wallin. Journal of Educational Psychology, 1911–12.

Educational Administration. Strayer and Thorndike.

Published by the Psychological Clinic Press, Philadelphia, Pa.: Some Results of Standard Tests. D. C. Bliss. The Psychological Clinic. March 15, 1912. Vol. VI, No. 1.

Published by Harvard College: Proceedings of the Harvard Teachers' Association, 1913.

Published by Department of Cooperative Research, Detroit, Mich.; Bulletin No. 2, Courtis Standard Tests. Second Annual Accounting, 1912–13.

2. Dramatization.—Dramatizing stories has long been a part of the work in reading in the lower grades. This year an attempt has been made to carry on such work rather freely in all grades in the school. Nearly all the reading matter suited for use in elementary schools ought to stimulate visualization and imagination and arouse a desire for natural and vigorous interpretation. That it does not always tend to do so is due in large part to the fact that so little opportunity is given the child to express himself in the manner most natural for children, i. e., by physical action. When children are encouraged to so express themselves, to create a setting appropriate for the reproduction of a story, and to devise means of carrying out the action and conversation necessary for its proper interpretation, the desire for intelligent and forceful expression is increased. Initiative, resourcefulness, and self-confidence are developed. The spirit of team work and mutual helpfulness is aroused. Opportunities abound for leadership and for cooperation.

The experiments tried in various rooms and in hall exercises have given teachers a good idea of the possibilities and limitations of independent work by the pupils, and have enabled them to make the most of the creative instincts of children without sacrificing the guidance, suggestion, and training that need to come from the teacher.

In the following partial list of stories dramatized this year will be found some that were taken from history work, others from reading books, and still others from dramatic readers and books of plays. Many of these stories have been acted in the hall at Friday afternoon exercises, and out of the practice of "Friday afternoon dramatics" has grown the plan of having one or more rooms furnish a little entertainment each Friday for the rest of the school and for such parents as may come.

In general it is not too much to say that the larger use of dramatization has greatly increased the interest of children in oral reading and in each other. It has helped bring teachers and children into closer and more companionable

relations and has socialized the spirit of the school. Several of the children have written or adapted little plays. It is believed that the influence of this work carries over into the life of all the children to a considerable extent, even when they do not frequently take an active part in it.

A PARTIAL LIST OF STORIES DRAMATIZED.

Grade I.

Grade II.

Three Piggy Wigs.
The Gingerbread Man.
The Three Goats.
The Three Bears.
The Country Mouse and the City Mouse.
The Boy who cried "Wolf."

Grade III.

The Rich Goose.
The Stone in the Road.
Johnny Cake.
Billy Binks.
The Three Little Pigs and the Ogre.
The Wolf and the Kid.
The Ant and the Mouse.
The Marriage of Robin and Wren.
The Tar Baby.
The Wish Bird.

Grade IV.

Little Pilgrims.
Jack Horner's Pie.
Reynard the Fox.
The Sleeping Beauty.
Wise Men of Gotham.
The Gorgon's Head.
Daniel Boone.
Daniel Webster's First Plea.

Grade V.

The Gingerbread Man.
The Three Bears.
Cinderella.
Abraham Lincoln.
Cosette.
Little Snowdrop.
Brought to Trial.

Grade VI.

His Word of Honor.
Sleeping Beauty.
William Tell.
William Haverly.
The Bird's Christmas Carol.
The Three Wishes.
The Soldier's Reprieve.
Dinner at the Cratchits'.
A Brave Boy.
Scrooge and Marley.
Hansel and Gretel.

Grade VII.

Cinderella.
Persephone.
Columbus Seeking Assistance from Royalty.
The First Thanksgiving.
General Gage and the Boston Boys.
Nimble Wit and Fingerkins.
A Lesson on George Washington.
Scrooge's Christmas.
The Boston Tea Party.
The Capture of Fort Ticonderoga.
Opportunity.

Grade VIII.

The Vicar of Wakefield.
Little Men.
The Sleeping Beauty.
Nathan Hale.
The Diamond Necklace.
The Treason of Benedict Arnold.
Rebecca of Sunnybrook Farm.

3. *Special projects.*

Under this head a great variety of activities might be included, but only a few can be referred to here.

(a) *Nature study and gardening.*—It is believed by the writer that no argument is needed to support the theory that an appreciation of nature and an interest in growing things are vital, practical elements in any complete scheme of education. That they are difficult of accomplishment in a city school should

not prevent some effort being made to at least partly achieve results by suggestion and demonstration, even though every child can not participate largely. A small garden is maintained in both of the school yards in the district, and a considerable number of children plant seeds every year and bring plants from their home gardens. Seeds are started in boxes in the school, and although the results are not very satisfactory, owing to poor conditions, it is surprising to see how many children are encouraged to do some planting at home, and how interested they are in the process. In addition to the seeds sent from Washington every year for free distribution, several hundred small packets are made up by the children from seed bought at wholesale and sold at cost to pupils.

The most successful form of gardening for city children in school has been found to be bulb growing, both because the results are fairly certain and because the operations are easily arranged anywhere, and may be duplicated successfully in the home.

In accordance with its policy of cooperation, the school extends to all teachers in the city an opportunity to share in the results of its efforts in this direction. Bulbs and pots are furnished at cost to all who want them. In this way about 8,000 bulbs and several hundred pots were distributed last fall.

If the school department would furnish proper potting soil and take charge of the distribution of bulbs and pots, a long step forward would be taken in establishing a permanent interest in indoor gardening of a practical character. As to the educational value of bulb growing, one has only to visit the Martin School when the bulbs are in flower to be convinced of the influence that this enterprise has upon the children individually and upon the school as a whole.

About a thousand bulbs are grown at the school each year. All these varieties have been found suitable for indoor use except the Darwin tulips, which are only for outdoor planting. Of the other tulips, Yellow Prince seems to be the best for indoors.

The situation of the school, near the Fenway, makes it possible to encourage bird study. Although no attempt is made to follow any set course of instruction, children are quick to develop an intelligent interest in nature in any form, and it is noticeable how often those who go on a field trip while in a primary grade will refer to it in the following year or two years afterwards. The attitude taken by the teacher on such excursions is not wholly that of an instructor, but rather that of an intelligent parent or companion of the children interested to help the little ones to share in an appreciation of the truly wonderful life that is revealed to the observant mind.

(b) *Miscellaneous field trips.*—Field work with classes of 40 or 50 children presents some difficulties, but most of them are soon overcome when the teacher and children become accustomed to the changed situation and adjust themselves to it. The most important thing to be assured of is that the teacher has a definite and comprehensive knowledge of what she wants the children to get from the trip. Of course, it is important that the thing should be worth getting and that it will contribute to better comprehension of social, political, industrial, historical, or commercial facts. Teachers who have done the most in this line of work with children find increasing interest and satisfaction in it. Not a great deal is attempted by any one teacher, but this form of education is encouraged in the school, and its extension is believed to be desirable.

In this account of the activities of the school emphasis has been laid upon several features that are still spoken of by a few people as "fads" and "frills." It should not be supposed that the school believes in sacrificing the intellectual

discipline that comes from careful study and systematic drill or the development of character that results from obedience to authority and from the performance of required tasks, whether they are interesting or not. A great deal of the work in any school is bound to make demands upon the will power and determination of pupils. It ought so to do as a preparation for the requirements of practical life. But if, in addition to this, a spirit of social and individual activity can be encouraged and wholesome interests aroused and quickened by other means than textbook study and schoolroom recitation, then these other aims are worthy of encouragement and emphasis. It is the conscious aim of the school to utilize as many of the natural interests of children as possible; not to weaken, but to reinforce and invigorate the process of education in those fundamental facts that constituted almost the sole aim of the "education of yesterday."

APPENDIX E.

TABLE 1.—Teachers' training schools—Salaries, membership, graduates, etc.

Location.	Institution and principal.	Date founded.	Years in normal course.	Students in training courses for teachers.		Graduates from teachers' training courses.		Daily pay of practice teachers.	Salary of principal.	"Theory" teachers.		"Practice" teachers.		Supervisors.		"Special" teachers.		Clarks, librarians, etc.	
				Male.	Female.	Male.	Female.			Number.	Salaries.	Number.	Salaries.	Number.	Salaries.	Number.	Salaries.	Number.	Salaries.
New York.....	Brooklyn Training School for Teachers— <i>Emma L. Johnson.</i>	1885	2	26	1,073	11	560	\$0.75	\$5,000	49	\$1,400 3,260	.....	.....	7	\$1,690 1,850	.....	.....	3	\$900 1,200
Do.....	New York Training School— <i>Sept. 1898.</i>	.....	2	45	831	13	345	.75	5,000	39	3,260	.....	.....	6	1,850	.....	.....	3	1,400
Do.....	.....	1906	2	2	214	.....	106	.75	5,000	14	2,150 3,260	.....	.....	2	1,610 1,850	1	\$2,750	1	1,060
Chicago.....	.....	1856	2	25	680	.....	.....	.....	5,500	34	1,400 3,000	104	\$660 1,500	.....	.....	.....	.....	2	980 1,900
Philadelphia.....	School of Pedagogy— <i>Francis Bessie.</i>	1891	12	91	.....	.....	.....	0	3,500	5	1,900 2,200	2	1,550	.....	.....	2	1,000	1	800
Do.....	Philadelphia Normal School for Girls— <i>J. Eugene Baker.</i>	1818	2	.....	674	203	.....	0	4,500	33	.....	73	950 1,150	4	1,400	16	1,200 700	7	600 1,400
St. Louis.....	Harris Teachers College— <i>John W. Willett.</i>	1895	2	.....	203	.....	86	(1)	4,500	12	1,575 3,000	.....	.....	.....	.....	4	1,575 2,300	2	1,100
Do.....	Normal Course in Summer High School— <i>Frank L. Williams.</i>	1905	2	.....	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Boston.....	Boston Normal School— <i>Wallace Boyden.</i>	1852	3	10	215	10	101	0	4,000	14	1,030 3,204	.....	.....	5	1,500 2,780	4	.....	1	720
Cleveland.....	.....	1872	2	.....	200	.....	82	0	.....	11	.....	.....	.....	1	2,000	4	1,100 1,800	.....	500 1,000
Baltimore.....	.....	1851	2	4	50	.....	57	1.00	3,000	5	1,100 1,200	10	750 900	3	900	.....	.....	2	.....
	<i>Frank A. Moway.</i>	1872	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

1 Where more years than one year are given, reorganizations are indicated.

2 Central High School teachers give 12 hours a week of service.

3 One-year course from 1891-1906.

4 For half year, \$100.

5 Three-year course since 1912.

TABLE 1.—Teachers' training schools—Salaries, membership, graduates, etc.—Continued.

Location.	Institution and principal.	Date founded.	Years in normal course.		Students in training courses for teachers.		Graduates from teachers' training courses.		New teachers required in city each year.	Daily pay of practice teachers.	Salary of principal.	"Theory" teachers.		"Practice" teachers.		Supervisors.		"Special" teachers.		Clerks, librarians, etc.	
					Male.	Female.	Male.	Female.				Number.	Salaries.	Number.	Salaries.	Number.	Salaries.	Number.	Salaries.	Number.	Salaries.
Baltimore.....	Baltimore Colored	Jan., 1901	2	7	82	3	15	26	0	\$2,400	3	\$700-1,000	7	\$750-900	2	\$900-1,200	4	.....	1	(1)	.....
Pittsburgh.....	School for Teachers—H. B. Davis.	Sept., 1912	2	.....	176	.....	.....	100	0	.....	14	1,200-2,500	.....	.....	2	2,500	6	.....	1	\$750	.....
Detroit.....	.....	1882	3	.....	260	.....	83	100	2.50	3,000	7	1,300-1,800	K. 4 E. 16	900-1,300	.....	.....	6	.....	2	.....	.....
Buffalo.....	.....	Sept., 1896	2	1	36	.....	.....	50-75	(4)	2,500	3	1,200-1,500	10	1,050-1,300	.....	.....	5	\$600-2,200	0	.....	.....
Chicagot.....	.....	1898-1906	4	42	243	.....	88	.....	.....	4,200	2	1,600-3,000	.....	.....	.....	.....	9	600-3,500	(1)	.....	.....
Newark.....	School—A. Spade Wille.	1856-1879	2	7	226	.....	46	106-136	0	3,300	6	1,900-2,100	11	1,000	.....	.....	3	2,000-3,000	2	880-890	.....
New Orleans.....	New Orleans Normal School—Margaret Hanson.	Oct., 1896	2	.....	351	.....	(K. 16) 79	50	0	1,700	15	900-1,150	12	800-1,200	4	850-1,150	2	900-1,150	1	700	.....
Washington.....	J. Ormand Wilson Nor- mal School—Anne M. Goring.	1873	2	.....	132	.....	(K. 17) 84	.....	0	2,500	6	1,000-1,800	8	1,000-1,800	.....	.....	4	1,000-1,800	0	.....	.....
Do.....	Normal School No. 2— Lucy E. Motes.	1861-1871	2	4	128	.....	77	76	0	2,500	7	1,000-1,800	3	1,800	.....	.....	3	1,000	0	.....	.....
Jersey City.....	Teachers' Training School—J. H. Brew- ster.	Sept., 1894	2	.....	120	.....	73	66	0	4,000	.....	1,040-4,000	14	1,400	2	1,552-2,000	.....	.....	1	744	.....
Kansas City (Mo.)	Training School—Ger- trude K. Greene	1900	1½	.....	20	.....	.....	.....	.....	2,400	1	1,200	.....	.....	.....	.....	.....	.....	.....	.....	.....
Indianapolis.....	City Normal School— Marion Lee Webster.	1867	2	.....	110	.....	37	40	2.00	2,000	.....	.....	16	1,036-1,500	.....	.....	7	10	80-300	0	.....

Louisville	1876	2	50	20	0	2,000	1,200	7	900	4	1,500	1	450
Louisville Normal School—Elizabeth Brackenridge.	1887	2	21	75	0	1,500	1,500	6	550	1	800	1	250
Colored Normal School—Albert E. Meyers.	1888	2	80	25-50	0	2,100	900	17	850	1	1,200	0	—
Training School for Teachers—Edith A. Scott.	1882	2	63	25-50	0	2,500	1,000	9	1,000	5	1,000	1	700
Columbus	1883	2	108	44	0	2,000	1,500	9	1,000	6	900	0	—
Toledo	1885	2	62	30-40	0	1,600	—	3	1,000	5	—	0	—
Atlanta	1888	14	23	24-25	0	1,800	—	2	84	3	—	0	—
Syracuse	1880	2	54	12-15	0	1,800	1,000	1	1,200	—	—	—	—
Birmingham	1887	2	35	60	—	1,200	540	12	—	5	—	0	—
Richmond	1895	2	50	25	0	2,100	1,100	3	600	6	450	1	25
Do	1911	2	24	—	0	2,250	900	4	600	3	2,100	0	—
Patterson	1870	2	119	40	0	2,700	1,000	19	1,000	0	—	0	—
Omaha	1903	2	43	5-50	0	1,550	1,200	1	1,050	5	1,550	0	—
School—Clara E. Cooper.	1888	2	47	12-15	0	1,800	1,200	2	1,000	3	1,500	0	—
City Normal School—Anna W. Butler.	Sept., 1860	2	38	20	0	1,500	1,500	4	900	6	900	—	—
Dayton	Sept., 1864	1	—	30-40	0	2,800	—	—	—	2	1,000	1	650
Cambridge	1889	2	55	45	0	1,800	1,100	—	—	4	1,200	1	240

¹ \$1.50 per day.

² Kindergarten course opened in 1895.

³ K., kindergarten course; E., elementary course.

⁴ Receive pay only when substituting.

⁵ University staff.

⁶ 1881, private school; 1871, semi-public; 1888, public.

⁷ \$100 per year.

⁸ \$150 first half year; \$200 second half.

⁹ \$2,000 all.

¹⁰ For half time.

¹¹ 24 years.

¹² service.

TABLE 1.—Teachers' training schools—Salaries, membership, graduates, etc.—Continued.

Location.	Institution and principal.	Date founded.	Years in normal course.	Students in training courses for teachers.		Graduates from teachers' training courses.		New teachers required in city each year.	Daily pay of practice teachers.	Salary of principal.	"Theory" teachers.		"Practice" teachers.		Supervi- sors.		"Special" teachers.		Clerks, librarians, etc.	
				Male.	Female.	Male.	Female.				Number.	Salaries.	Number.	Salaries.	Number.	Salaries.	Number.	Salaries.		
Baltimore.....	Baltimore Colored Training School—J. H.	Jan., 1901.	2	7	52	3	15	26	0	\$2,400	3	\$700-1,000	7	\$750-900	2	\$800-1,200	4	.....	1	(1)
Pittsburgh.....		Sept., 1912.	2	.....	175	.....	.....	100	0	.....	14	1,200-2,500	.....	.....	2	2,500	6	.....	1	\$750
Detroit.....		1882	3	.....	280	.....	83	100	2.50	3,000	7	1,300-1,800	9 K. 4 E. 16	900-1,300	.....	.....	6	.....	2	.....
Buffalo.....	School—Byron H. Heath.	Sept., 1896.	2	1	39	.....	.....	50-75	(1)	2,500	3	1,200-1,500	10	1,050-1,300	.....	.....	5	300-2,200	0	.....
Cincinnati.....	University of Cincinnati	1868-1905	4	42	243	.....	23	.....	.....	4,200	3	1,600-3,600	.....	.....	.....	.....	9	600-3,500	(2)	.....
Newark.....	School—A. Spode Wills.	1855-1879	2	7	336	.....	45	108-186	0	3,800	8	1,800-2,100	11	1,600	.....	.....	3	2,000-3,000	2	850-880
New Orleans.....	New Orleans Normal School—Margaret Benson.	Oct., 1896.	2	.....	351	.....	(K. 15) 79	50	0	1,700	15	900-1,150	12	800-1,200	4	850-1,150	3	900-1,150	1	700
Washington.....	J. Ormand Wilson Normal School—Anna M. Goding.	1873	2	.....	152	.....	(K. 17) 84	.....	0	2,500	6	1,000-1,800	8	1,000-1,800	.....	.....	4	1,000-1,800	0	.....
Do.....	Normal School No. 2—Lucy E. Moten.	1851-1871-1888	2	4	128	.....	77	75	0	2,500	7	1,000-1,800	3	1,800	.....	.....	3	1,000	0	.....
Jersey City.....	Teachers' Training School—J. H. Brainerd.	Sept., 1896.	2	.....	130	.....	72	66	0	4,000	.....	1,040-4,000	14	1,400	2	1,552-2,000	.....	1	744	
Kansas City (Mo.)	Training School—Gertrude E. Greene.	1900	1½	.....	30	.....	.....	.....	.....	2,400	1	1,200	.....	.....	.....	.....	.....	.....	.....	.....
Indianapolis.....	City Normal School—Marion Lee Webster.	1867	2	110	37	40	2.00	2,000	18	1,025-1,500	10	50-200	0

TEACHERS' TRAINING SCHOOLS.

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Louisville.....	1876	2	30	20	75	0	2,000	1,200	1,200	7	900	1,500	1	450
Do.....	1887	2	21	75	0	1,500	1	1,500	6	550	1	1	260
Rochester.....	1886	2	30	24	25-50	0	2,100	7	2,025	17	850	1	0	.....
St. Paul.....	1882	2	53	23	25-50	0	2,500	3	1,000	9	1,000	5	1	700
Columbus.....	1883	2	108	44	50-60	0	2,000	10	1,500	9	900	5	0	.....
Toledo.....	1883	2	62	39	30-40	0	1,600	.....	.....	3	1,000	5	0	.....
Atlanta.....	1898	13	22	.....	34-25	0	1,800	.....	.....	3	84	3	0	.....
Syracuse.....	1890	2	54	17	12-15	0	1,800	2	1,000	1	1,200	.....	.....	.....
Birmingham.....	1887	2	55	.....	60	.....	1,200	2	540	12	.....	5	0	.....
Richmond.....	1906	2	50	.....	25	0	2,100	2	1,100	3	600	6	1	25
Do.....	1911	2	24	.....	.....	0	2,250	2	900	4	765	3	0	.....
Peterson.....	1870	2	119	55	40	0	2,700	5	1,000	19	900	0	0	.....
Omaha.....	1905	2	43	.....	5-50	(1)	1,550	.....	1,200	1	1,050	5	0	.....
Pall River.....	1888	2	47	.....	12-15	0	1,800	1	1,200	2	1,000	3	0	.....
Dayton.....	Sept., 1889	2	56	41	20	0	1,500	2	1,000	4	800	6	.....	.....
Cambridge.....	Sept., 1884	1	.....	.....	30-40	(12)	2,800	0	1,500	.....	900	1,300	1	650
Bridgeport.....	1889	2	55	19	45	(13)	1,800	5	900	.....	900	1,200	1	1,240

1888, public.
 24 years
 by service.

used in 1895.
 E., elementary course,
 substituting.

21
 2
 3
 4
 5

11 \$100 per year.
 12 \$150 first half year; \$200 second half.
 13 \$2,000 all.
 14 For half time.

Erie.....	Normal Class— <i>Columbia J. Hervey.</i>	2	26	.....	10	0	1,045	.....	.....	.....	.....	8	0
Harrisburg.....	Teachers' Training School— <i>Annie U. Wert.</i>	2	36	.....	20-26	0	1,200	.....	2	750	.....	2	1,200 1,400
Fort Wayne.....	Fort Wayne Normal School— <i>Flores Wilber.</i>	2	21	.....	8-10	0	.....	2	6	900 900	.....	6	.....
Charleston.....	Manning High and	1	24	.....	5-10	0	1,800	.....	.....	.....	.....	9	495 675
Bay City.....	City Training School.....	2	15	.....	15	(*)	1,300	6	750 800	(*)	.....	8	700 1,200
Davenport.....	Teachers' Training School— <i>A. O. Sherry.</i>	1	16	.....	10-15	0	.....	.....	.....	.....	.....	.....	.....
Macon.....	Elam Alexander Normal School— <i>Pearl Stephens.</i>	2	23	.....	18	0	1,200	.....	.....	.....	.....	2	1,200 0
Elmira.....	Elmira Training School— <i>Katherine E. Seelye.</i>	2	13	.....	5	0	1,250	1	750	5	600	3	1,060 1,250 0
Chickasaw.....	Training School— <i>Elizabeth.</i>	2	6	.....	25	(*)	.....	.....	.....	.....	1	.....	.....
Watertown.....	Training School— <i>Elizabeth.</i>	2	26	.....	25	2.50	900	1	1,650	1	1,650	2	750 0
Burlington.....	.....	2	10	.....	3-8	0	1,150	.....	.....	.....	.....	4	50 extra. 0
Muskegon.....	School— <i>Marjorie Kerman.</i>	1½	24	.....	8-10	0	1,200	1	.....	.....	.....	5	700 1,100 0
Concord (N. H.).	Concord Training School— <i>Addie F. Straw.</i>	2	12	.....	4	0	1,000	.....	.....	.....	.....	2	900 1,175

For part time.

• For 40 days.

* Second semester, \$5 a month; third, \$10; fourth, \$15.

• Included in teachers of theory.

1,300 a year.

Training School.

1900.

on substituting.

3

10

10

2

Bedroom.

Not less than 30 days.

TABLE 3.—*Summary of data in Table 2.*

I. CITIES WITH LESS THAN 100,000 POPULATION HAVING TRAINING SCHOOLS.

	Untrained beyond high school.	Trained in city beyond high school.	Trained elsewhere beyond high school.
Trenton.....	34	179	159
Camden.....		158	.....
Yonkers.....		40	361
Troy.....		181	46
Elizabeth.....		171	83
Schenectady.....		81	214
Akron.....		77	250
Erie.....		260	12
Bay City.....	5	52	123
Davenport.....		164	46
Macon.....	42	152	67
Elmira.....		78	76
Watertown.....	24	52	46
Muskegon.....		72	89
Concord.....	5	36	10
Total.....	110	1,753	1,582

II. CITIES OF 100,000 POPULATION OR OVER HAVING TRAINING SCHOOLS.

Cleveland.....	173	1,562	702
Baltimore.....	689	744	22
Newark.....	44	852	513
New Orleans.....	23	926	218
Washington.....	129	1,076	72
Jersey City.....		722	39
Indianapolis.....		294	311
Louisville.....	28	487	86
Rochester.....	46	339	234
Birmingham.....	90	120	323
Richmond.....	281	43	72
Pittsburgh.....		452	10
Omaha.....		150	400
Cambridge.....	18	208	233
Albany.....	82	199	29
Total.....	1,603	8,173	3,264

III. CITIES OF 100,000 POPULATION OR OVER WITHOUT TRAINING SCHOOLS.

Minneapolis.....	51	117	886
Seattle.....	98	.....	618
Denver.....	200	.....	800
Portland.....	152	169	290
New Haven.....	13	427	86
Scranton.....	86	220	284
Grand Rapids.....	100	50	250
Nashville.....	154	.....	243
Spokane.....	45	3	357
Total.....	899	986	3,814

TABLE 4.—Number of elementary teachers employed in 1913, and of new teachers required each year; salaries of practice teachers and substitutes; minimum and maximum salaries of elementary teachers in 50 cities with over 100,000 inhabitants, and in smaller cities having training schools.

Cities.	Popula- tion.	Ele- men- tary teach- ers.	New teach- ers re- quired an- nually.	Salaries.					
				Of prac- tice teachers.	Of sub- stitutes.	In pro- bation- ary period.	On elec- tion.	Annual in- crease.	Ele- mentary maxi- mum.
				Per day. (¹)	Per day. \$3. 00		\$720		² \$1, 500
New York.....	4, 766, 883	15, 182	1, 568						1, 830
Chicago.....	2, 185, 283	5, 499	³ 350	0	3. 00	⁴ \$3. 00	650	\$50	1, 175
Philadelphia.....	1, 549, 008	3, 946	⁵ 300	0	2. 00	⁴ 2. 00	520	30	² 1, 225
St. Louis.....	687, 029	1, 765	⁶ 110	(⁶)	2. 00	600.00	600	40	820
Boston.....	670, 585	2, 118	100- 216	0	2. 00- 4. 00	⁴ 2. 00	600	72	⁷ 1, 032
Cleveland.....	560, 663	1, 664	100	0		⁹ 500. 00	550	50	⁸ 1, 300
Baltimore.....	558, 485	1, 601	¹⁰ 84	¹¹ \$1. 00	1. 00- 1. 50	(¹²)	500	50	1, 000
Pittsburgh.....	533, 905	1, 287	100	0			600		800
Detroit.....	465, 766	1, 218	100	2. 50	2. 50	¹⁴ 50. 00	500	50	¹³ 900
Buffalo.....	423, 715	1, 319	50-75	0	2. 00		500	50	² 1, 050
San Francisco.....	416, 912	963	80		3. 00	840. 00	900-		1, 000
Milwaukee.....	373, 857	1, 019	75-100		2. 00-		960		¹⁵ 1, 100
Cincinnati.....	363, 591	989	50-70	0	3. 00		¹⁷ 540		900
Newark.....	347, 469	1, 230	108- 186	0	2. 25		¹⁹ 600		950
New Orleans.....	339, 075	1, 114	50	0	2. 00	⁴ 2. 00	²¹ 450	50	¹⁶ 1, 164
Washington.....	331, 069	1, 365	75	0	1. 75	500. 00	²³ 600		1, 224
Los Angeles.....	319, 198	1, 120	100		3. 00		580		¹⁷ 540
Minneapolis.....	301, 408	958	150		(²⁴)	744. 00			¹⁹ 600
Jersey City.....	267, 779	670	66	0	2. 00				²⁰ 1, 020
Kansas City.....	248, 381	929	40		2. 00		²¹ 450	50	1, 000
Seattle.....	237, 194	681	80		4. 00	300. 00-			²² 600
Indianapolis.....	233, 650	751	75	2. 00		450. 00			²³ 1, 100
Providence.....	224, 326	660	50		3. 50		810		² 1, 300
Louisville.....	223, 928	589	35		2. 50-		500		750
Rochester.....	218, 149	607	25-50		3. 00				² 800
St. Paul.....	214, 744	549	25-50	0	2. 00				1, 350
Denver.....	213, 381	747	80-100		3. 00				1, 080
Portland (Oreg.)....	207, 214	602	65		2. 50-				1, 000
Columbus.....	181, 511		50-60	0	3. 00		825		²⁵ 925
Toledo.....	168, 497	589	30-40	1. 50	2. 50-		500	50	750
Atlanta.....	150, 174	376	24-45	0	3. 75				² 900
Oakland.....	150, 174	412	60						800

¹ \$75 per year.

² For teachers of eighth grade.

³ Includes 75 old teachers returned.

⁴ Per day.

⁵ 88 white teachers, 13 kindergarten, and 9 colored.

⁶ \$100 for half year.

⁷ Second assistant.

⁸ Head assistant.

⁹ For 38 weeks.

¹⁰ 58 white; 26 colored.

¹¹ For white teachers.

¹² \$1.50 preliminary, then one year at \$444 for women and colored men; \$600 for white men.

¹³ Teachers of grades one to seven.

¹⁴ Per month.

¹⁵ 12 assistants in grammar school.

¹⁶ Reached in eighth grade.

¹⁷ Teachers of grades two to seven.

¹⁸ Reached in twelfth year by teachers of grades two to seven.

¹⁹ Teachers of grades one and eight.

²⁰ Reached in twelfth year by teachers of grades one and eight.

²¹ Noncollege graduates.

²² College graduates.

²³ Teachers of grades one to six.

²⁴ Same as regular teachers.

²⁵ Teachers of 1 B and grades seven and eight.

²⁶ Three-fourths of regular pay.

²⁷ Eleventh year.

²⁸ Two years.

²⁹ Sixth year.

³⁰ Teachers of seventh to ninth grades.

³¹ Eleventh year; colored, \$310 to \$439.

³² Twelfth year.

TABLE 5.—Persistence in service, and distribution in grades, of training school graduates in certain cities—Continued.

Cities.	Training schools.		Graduates in service.	In kindergartens.	In grades.						Total elementary.	Teaching in high schools.	In teachers' training schools.	As assistant principals.	As principals.	As special or assistant.
	Date founded.	Total graduates.			I.	II.	III.	IV.	V.	VI.	VII.	VIII.				
Columbus.....	1883	1,108	500	.....	62	54	67	60	60	51	40	20	.....	12	1	.....
Toledo.....	1883	650	273	.....	.....	.....	.....	.....	.....	.....	.....	.....	55	2	3	.....
Atlanta.....	1898			.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	.....
.....	1909	77	31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Birmingham.....	1887	.....	.....	.....	15	12	10	8	10	10	12	.....	2	.....	.....	.....
.....	1895			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Paterson.....	1908	.....	.....	.....	56	52	59	58	49	47	36	31	.....	4	3	.....
Omaha.....	1870	.....	440	38	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	3
Fall River.....	1905	.....	201	34	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	2
Dayton.....	1888	348	191	.....	31	13	8	25	18	9	6	4	.....	8	15	156
Cambridge.....	1869	800	389	.....	50	50	40	40	40	30	25	20	.....	3	25	.....
Bridgeport.....	1884	596	176	10	24	34	25	21	21	18	15	3	.....	.....	.....	.....
Albany.....	1889	444	240	.....	34	52	40	39	35	19	9	.....	4	.....	.....	.....
Reading.....	1884	.....	153	.....	22	25	23	15	25	17	7	7	.....	4	.....	.....
Camden.....	1908	107	24	.....	10	6	3	4	1	.....	.....	.....	3	8	1	.....
Wilmington.....	1894	204	167	.....	39	39	28	25	15	7	2	3	.....	.....	.....	9
Kansas City.....	1882	275	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	11	10	.....
Yonkers.....	1900	180	120	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
Elizabeth.....	1909	112	53	.....	29	4	8	4	2	1	1	1	.....	.....	.....	33
Schenectady.....	1907	75	69	.....	5	13	17	6	17	6	.....	.....	.....	.....	5	.....
Akron.....	1896	156	81	.....	20	17	27	5	7	4	1	.....	.....	.....	.....	.....
.....	1895	186	76	7	6	9	11	15	7	4	5	2	.....	1	.....	.....
.....	1905	76	40	.....	3	15	7	5	4	4	2	.....	6	.....	3	.....
Harrisburg.....	1902	120	76	.....	25	13	10	10	7	4	4	1	.....	.....	.....	.....
Fort Wayne.....	1897	148	84	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....
Bay City.....	1890	.....	.....	.....	7	8	6	5	7	4	3	4	.....	1	.....	.....
Davenport.....	1863	800	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
Elmira.....	1895	230	133	.....	20	10	14	16	10	10	10	3	.....	1	4	10
Watertown.....	1899	150	81	.....	13	17	16	7	7	.....	17	.....	7	.....	.....	.....
Burlington.....	1893	441	100	.....	11	14	13	10	10	11	11	3	.....	3	.....	.....

¹ Fifty-six as assistants.

² Since 1901.

³ Three as assistants.

PER CAPITA COST OF TRAINING SCHOOLS IN CERTAIN CITIES.

There is not sufficient material available at present to make a fair comparison of the cost of training schools. The figures given in the table are sufficiently suggestive to be worthy of consideration, however. Thus, in the eight schools shown, there is a range of nearly 400 per cent in the total per capita cost, but one can not be sure of the range of items included. In Baltimore, for example, the charge for fuel and janitor service for the training schools is made against the elementary schools occupying the same buildings.

Then, too, the divisor used in determining the per capita cost makes much difference in the various cities. In some schools the proportion of graduates to enrollment is much smaller than it is in others. To give results that would be of real value in assisting school authorities to determine the relative cost in a number of cities, it would be well to show the per capita cost on the basis of graduates, as well as of total membership. Thus the amount paid by the city of Cincinnati for the work of the college of teachers, \$10,500, if divided by the membership (243) would give a cost of \$43, while a division on the number of graduates (33) would give \$300.

There is special reason for working out formulæ for reporting the cost of small schools. The returns from some of the schools show very little charged against the training school except the salary of a principal, while a more exact accounting, such as was given in the 1911 report of the East Saginaw training school, shows an expenditure of \$3,525 for 10 students.

TABLE 6.—Costs of teachers' training schools.

Cities.	Year.	Expendi- ture for salaries.	Total expendi- tures.	Per capita.		Per capita.	
				Salaries.	Total.	All secondary schools.	All ele- mentary schools.
Baltimore:							
White.....	1910-11	\$9,904	\$11,913	\$81.85	\$98.45		
Colored.....	1910-11	7,733	8,420	105.95	115.34	\$68.40	\$21.85
Chicago ¹	1906-7		97,381		220.87	58.56	29.44
Do.....	1907-8		104,092	136.91	222.98	58.78	29.84
Do.....	1910-11	81,588	102,752		175.24	67.73	34.40
Cleveland ²	1899-1900	7,900		40.30			
Do.....	1907-8	16,700		90.76		63.52	21.00
Do.....	1908-9	15,436		71.46			
Do.....	1909-10	18,470		90.09		83.97	23.91
Louisville:							
White.....	1910-11			³ 118.60		72.68	
Do.....	1911-12			102.46			
Colored.....	1910-11			³ 84.50		61.58	20.88
Do.....	1911-12			89.30		62.80	
Newark.....	1910-11	13,523	15,334		74.13		
Do.....	1911-12	12,976	15,125		62.49		
St. Louis.....	1909-10			189.39	241.86	72.65	
Do.....	1910-11	24,377		165.01	206.76	76.30	
Do.....	1911-12					84.95	

¹ Inclusive of extension, but exclusive of practice. ² Exclusive of practice. ³ Ordinary.

TABLE 7.—Applicants, enrollment, and graduates of training schools.

Cities.	Year.	Appli- cants.	Enroll- ment.	Graduates.	In service, 1913.
New York City.....		1,807	1,049	904	.....
New York.....	1910-11	705	369	358	.....
Brooklyn.....	1910-11	923	557	473	.....
Jamaica.....	1910-11	179	123	73	.....
Chicago.....	1903-4	.....	230	74	.....
	1904-5	.....	322	94	.....
	1905-6	.....	435	124	.....
	1906-7	.....	533	189	.....
	1907-8	.....	601	219	.....
	1908-9	.....	672	261	.....
	1909-10	.....	700	270	.....
	1910-11	.....	303	.....	.....
	1911-12	.....	216	.....	.....
St. Louis.....	1905-6	.....	66	June. (31) 31	.....
	1906-7	.....	84	(29) 54	.....
	1907-8	.....	131	(41) 65	.....
	1908-9	.....	145	(68) 101	.....
	1909-10	.....	120	(49) 115	.....
	1910-11	.....	175	(34) 86	.....
Cleveland.....	1899-1900	.....	196	99	.....
	1908-9	.....	216	85	.....
	1909-10	.....	205	99	.....
Baltimore.....	1902	¹ 13	.....	.....	11
	1903	97	.....	.....	46
	1904	82	.....	.....	39
	1905	51	.....	.....	21
	1906	76	.....	.....	25
	1908	(7 men) 62	.....	37	36
	1909	84	.....	68	61
	1910	(1 man) 100	.....	75	64
	1911	(4 men) 88	.....	65	53
	1912	89	.....	50	.....
	1913	95	.....	54	.....
	1914	87	.....	.....	.....
Newark.....	1902	.....	149	45	.....
	1906	.....	120	45	.....
	1907	.....	181	62	.....
	1908	.....	247	80	.....
	1909	.....	227	² 78	.....
	1910	.....	232	84	.....
	1911	.....	266	.....	.....
	1912	.....	310	97	.....
Jersey City.....	1910	.....	.....	³ 94	.....
St. Paul.....	1909	.....	.....	27	.....
	1910	.....	.....	23	.....
	1911	.....	.....	25	.....
Trenton.....	1907	.....	.....	12	.....
	1908	.....	.....	15	.....
	1909	.....	.....	18	.....
	1910	.....	.....	19	.....
	1911	.....	.....	21	.....
Fort Wayne.....	1898	.....	.....	14	.....
	1899	.....	.....	16	.....
	1900	.....	.....	8	.....
	1902	.....	.....	8	.....
	1903	.....	.....	6	.....
	1904	.....	.....	12	.....
	1905	.....	.....	11	.....
	1906	.....	.....	10	.....
	1907	.....	.....	7	.....

¹ The numbers in applicant's column for Baltimore denote admissions for graduation in year given.
² Kindergarten 16.
³ June, 44.

TABLE 8.—Costs for Harris Teachers' College, St. Louis, Mo., by years.

Year.	Total cost of maintenance.	Total salary cost.	Average membership.	Cost of maintenance per student.	Salary cost per student.
1905-6.....	\$20,922.10	\$11,764.35	66	\$317.00	\$178.23
1906-7.....	19,853.43	12,599.80	84	236.35	149.99
1907-8.....	23,290.57	16,398.35	131	177.79	125.18
1908-9.....	28,856.02	20,979.35	115	189.25	144.68
1909-10.....	29,212.78	22,727.20	120	243.44	189.39
1910-11.....	36,182.58	28,876.80	175	206.76	165.01
1911-12.....	37,228.99	29,252.20	196	189.89	149.28
Total.....	195,546.47	143,598.05	.....	.....	.....

The college has graduated 569 students. Therefore, the total expense to the city for each graduate is \$343.66 and the salary cost \$250.62. The salary cost is, therefore, less than 73 per cent of the total cost.

Distribution of teachers' salaries, Harris Teachers' College, St. Louis, 1911-12.

Men.	Women.	Wyman School of Observation.	
3 at \$2,400 1 at 3,000 1 at 1,576	1 at \$2,400 2 at 2,160 2 at 1,680 1 at 1,580 1 at 1,576	1 at \$1,400 3 at 1,172 6 at 1,132 1 at 1,072	2 at \$1,000 1 at 900 1 at 800 3 at 740

Total additional cost above salaries as elementary teachers, 18 at \$100=\$1,800.
Average salary of all teachers:

Cincinnati—		St. Louis—	
1900.....	\$805.00	1896-97.....	\$600.99
1910.....	965.00	1903-4.....	700.49
		1910-11.....	1,040.17

Average salaries Chicago Normal College:	" Practice."	" Theory."
1905-6.....	\$1,043.54	\$2,095.83
1910-11.....	1,213.19	2,250.00

(Elementary and kindergarten averages, \$826.35 and \$988.33.)

1910-11 (Chicago), 94 members of practice corps—Salary range, \$850 to \$3,250, including one principal at \$3,250 and two at \$3,100; mode, 53 at \$1,300; 35 theory teachers, range \$1,500 to \$2,800; average, excluding principal, \$2,250; mode, 11 at \$2,800; next order, 7 at \$2,300.

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THE EDUCATIONAL MUSEUM OF THE ST. LOUIS PUBLIC SCHOOLS

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ST. LOUIS, MO.

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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,

Washington, January 15, 1915.

SIR: In reply to Polonius' question, "What do you read, my lord?" Hamlet said, "Words, words, words." Such might be the reply of most people in regard to much of their reading, and this is especially true of children in school, whose range of reading extends much more rapidly than the range of their concrete experiences. Careful examination into the contents of children's minds reveals the fact that for much of their reading in geography, history, and other similar subjects they have no interpreting ideas. Teachers spend much time in vain attempts at explanation by means of words little if any better understood than those of the book. Dictionaries can not help much. The meaning of one word is not found in another. The real meaning of a word for any person is the idea with which it has been associated by virtue of the fact that word and idea have at some time come into consciousness together. Ideas are the results of experience. For any accurate ideas of the things of the world at large the child must be taken on extensive journeys or the things of distant places must be brought into the school. For most children the first is clearly impossible. Therefore, from the time of Comenius and his *Orbis Pictus*, teachers have tried to find some means of doing the second. The most successful means yet found is the well-selected and carefully arranged museum, put at the disposal of children and teachers in such way that any portion of its material may be had at the time when it is needed for the illustration of any lesson or the extension of the children's knowledge in regard to any part of the world, its products and industries. I know of no museum that has been made more useful to this end than has the Educational Museum of the St. Louis Public Schools. I therefore asked Mr. Carl Rathmann, assistant superintendent in charge of this museum, to prepare for this bureau some account of the museum and its use in the schools. In reply to this request Mr. Rathmann has submitted the accompanying manuscript, which I recommend for publication as a bulletin of the Bureau of Education.

Respectfully submitted.

P. P. CLAXTON, *Commissioner.*

The SECRETARY OF THE INTERIOR.

THE EDUCATIONAL MUSEUM OF THE ST. LOUIS PUBLIC SCHOOLS.

To make the child acquainted with the world in which he lives, we must bring him into personal contact with the world. Telling him or having him read about the earth, about the great changes produced on its surface through the activity of nature and man, about the people, their life and work, and their adjustment to their environment, will not give the child vivid and lasting impressions, nor arouse in him the desire and develop the power to do his own exploring and discovering. We must, as O'Shea says, "take him into the world or bring the world to him."

In St. Louis the teachers are given excellent opportunities to put their pupils in touch with the world around them. Entering a school-room during a geography lesson, the visitor may find that the children, after a thorough study of the relief map, are transported into the country which is the subject of their lesson. They have before them the typical representatives of the animal world, the minerals, the soil and the industrial products, which they observe, study, and discuss; or they view through the stereoscope or on the screen the surface features, the natural advantages, the scenery, the large cities and their institutions, the people, their occupations, their homes, and their manner of life.

Surrounded by carefully selected objects characteristic of the country, viewing all that is interesting in it through lifelike pictorial illustrations, living, as it were, in the country while studying it, the children receive vivid and permanent impressions of what is taught. The use of such illustrative material satisfies the child's desire for the concrete; it lends life and reality to the work and makes the geography lessons interesting and enjoyable.

The objects and pictures for the illustration of the work in geography, as well as for the lessons in nature study, history, reading, and art, are furnished by the Educational Museum of the Public Schools.

In other cities the public museums have in late years extended the scope of their work of disseminating knowledge to a field where it is of inestimable value. They have opened their great storehouses of information to the public schools and they ask the teachers

to make extensive use of the wonderful things from all parts of the world in connection with their regular school work. Some of the museums send a number of typical collections of illustrative material to the schools. Others invite the teachers to bring their classes to the institution and to give their lessons there, aided by the wealth of interesting specimens placed at their command; still others do both. In this manner the museums enable the teachers of our schools to supplement the textbook and their own statements of facts and descriptions of conditions by the study of real things, and thereby lend life and reality to their work. This practical cooperation of the museums with the schools is hailed by the teachers as one of the most helpful means of enlivening the study of nature and geography,

FIG. 2.—A few typical specimens of physics apparatus.

of stimulating the interest and self-activity of the children, and of making school work more enjoyable to both pupils and teachers.

St. Louis has no public museum. Washington University, St. Louis University, the Academy of Sciences, and the Historical Society have their own excellent museums, but these can not aid the schools.

In 1904, St. Louis had within her borders a most magnificent public museum—the World's Fair. The exposition gave St. Louis the opportunity to extend to her schools the same educational advantages that museums give to the schools of other cities.

During the entire period of the exposition, classes from all of our schools visited the fair grounds, accompanied by their teachers. From building to building the little folks wandered, gazing and wondering, eagerly listening to the explanations of teachers and exhibitors. The Government Building, the palaces of Agriculture,

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Fishing and Forestry, Horticulture, Mining and Metallurgy, and Education, and the foreign buildings were crowded with the little visitors every day. Confronted with the representatives of all nations and all races with which they had so far formed but a vague acquaintance through description and pictures, surrounded by a wealth of material from all corners of the world, the children felt themselves transported into distant lands. The cotton industry of the Southern States, the cultivation of rubber in Brazil, of cocoa in Venezuela, of tea in China, of rice in Japan, of the cocoanut in Ceylon, they saw represented by the real products in all the different stages of growth and development. They had read and seen pictures of the wonderful birds and insects of the tropics. Now they could see them in reality, and this made far more vivid and lasting impressions upon them than description and pictures.

FIG. 5.—Butterfly specimens.

With deep regret principals and teachers saw the close of the fair approach, and with it all the valuable means of stimulating interest in school work disappear. The board of education and the superintendent, realizing the wonderful opportunity of securing a wealth of valuable material for illustrating school work—an opportunity which would never return—appealed to the exhibitors to donate parts of their displays to the public schools. A large number of valuable exhibits were secured, and these formed the nucleus of our educational museum.

When the first attempt at a logical arrangement of the articles acquired from the World's Fair was made, it was found that much new material was needed to fill the gaps and to supply the missing links in the chain of groups and collections which were to illustrate the various features of school work. The board of education applied to some of the large museums of our country to help, and they

responded most readily and generously. Large amounts of valuable material were donated by the Field Museum of Natural History of Chicago, the Smithsonian Institution, the Philadelphia museums, and the Public Museum of Milwaukee. The United States Department of Agriculture gave large collections of plants and fibers. The Department of Fisheries contributed specimens of the fishes found in the waters of our country. Owners of mines and quarries sent the needed specimens of the mineral world. Commercial firms in the United States and abroad presented to the museum natural and industrial products of various kinds—such as, cotton, wool, silk, rubber, coffee, tea, cork, leather, glass, etc., and exhibits showing the different stages of their development. Teachers and pupils, patrons, and friends of the school helped enthusiastically in adding to the material. The board of education made a liberal appropriation for the purchase of new and duplicate material and for the general maintenance of the museum, and in October, 1904, the institution was ready to begin its work.

A TRAVELING MUSEUM.

In what way can the material be used most profitably by all the schools? Should the institution be a central museum, its contents to be used by all the schools, or should there be an individual museum in each school? These were the next questions.

It was found that it would not be feasible to supply every one of the hundred public schools of the city with a full set of physical apparatus, with large numbers of scientific specimens, or with full geographical collections to illustrate the life of peoples and the products of distant lands.

The expense would be excessive and the material furnished **each** school inadequate. It was decided that there should be one **museum** for all the schools.

How should the material be made accessible to the schools? Should the schools go to the museum, or the museum to the schools?

Because the pupils of many of the schools would have to travel several miles to get to the museum, too much time would be lost if the former method were followed. Moreover, the children would regard the trip to the museum and the time spent in it more a pleasure trip or somewhat of a picnic than an occasion for earnest, systematic study of some feature of their school work. In the museum children are surrounded by interesting things from all parts of the world; their interest is scattered, and it is very difficult to concentrate their attention upon the exhibits the teacher wants to discuss with them.

After a very careful consideration of the different possibilities of bringing the schools and the museum together, it was thought best to make the institution a traveling museum which would go to the schools and carry to the teachers the illustrative material which they needed at the time when they needed it.

A MUSEUM ON WHEELS.

The material is sent to the schools by a large automobile truck in the service of the museum. The schools are divided into five sections, each of which has a delivery day once a week. The principal of a school which has its delivery day on Monday asks his teachers on the preceding Friday to send him the numbers of all the collections in the museum catalogue they will need for the illustration of their lessons during the following week. These numbers he inserts in an order blank for the curator, and on the following Monday the wagon delivers the material at the school, taking back at the same time the collections used during the previous week.

WHAT THE MUSEUM CONTAINS.

The material in the museum is arranged and grouped in accordance with the course of study followed in the schools. The following are some of the groups:

Food Products, comprising the cereals in the plant and the grain, and their products; coffee, tea, sugar, cacao, in the various stages of production; spices, etc.

Materials for Clothing.—The various animal and vegetable fibers of the world, and the fabrics made of them.

Tree Products.—Domestic and foreign woods; rubber, gutta percha, camphor, cork, etc., in all stages of preparation; materials for dyeing and tanning, etc.

Industrial Products showing the various stages in the manufacture of glass, paper, leather, ink, pen, pencil, needle, etc., besides such products as are made from the materials mentioned in the former groups.

Articles and models illustrating the life and occupations of the different peoples of the world; such as implements, wearing apparel, models of houses, industrial products, etc.

The Animal World, mounted and dried specimens, and specimens in alcohol.

Plants, and models and charts of plants.

Minerals, rocks, and ores.

Apparatus for the illustration of physics and physical geography.

Musical and literary records for phonographs.

FIG. 6.—Automobile delivery from the museum.

Charts, colored pictures, maps, and objects illustrating history.

Charts illustrating astronomy.

Charts illustrating physiology.

Collections of art objects, and models used by the classes in drawing.

Classified collections of photographs, stereoscopic pictures, and lantern slides to accompany the objects in the preceding groups.

These groups are subdivided into smaller sections, or collections of from 4 to 8 objects, each of which represents a class or family of the group, as, for instance, in the case of birds, collections of wading birds, of owls, of finches, etc. Each collection is accompanied by a number of photographs, stereoscopic pictures, and lantern slides.

The collections are numbered and listed in the museum catalogue. With each article mentioned a brief explanation is given as to its use, where it is found, etc. At the head of each group a number of reference books are mentioned. These books are found in the teachers' library;¹ they give information about all the specimens in the group. Copies of the catalogues are found on the desk of every teacher in the schools.

A FEW TYPICAL GROUPS AND COLLECTIONS.

The following extract from the printed catalogue will show the principle according to which the material is arranged:

MATERIAL FOR CLOTHING.

Reference Books.

Chisholm—Commercial Geography.

Hanan—Textile Fibers of Commerce.

Lyde—Man and His Markets.

Toothaker—Commercial Raw Materials.

COTTON.

Collection 100.

Fibrous portion of fruit of cotton plant. Cotton most extensively used is that cultivated in the southern part of the United States, from Virginia to Texas.

1. Cotton bolls, Louisiana.
2. Cotton, unginned, Texas.
3. Cotton, ginned, Arkansas and Mexico.
4. Cotton seeds.
5. Cottonseed linters.
6. Miniature cotton bale.

Collection 101.—Cotton of Other Countries.

1. Sea-island cotton, West Indies.
2. Peruvian or kidney cotton, Peru.
3. Silk cotton obtained from the Bombax or cotton tree, Honduras and Venezuela.
4. Pods of cotton tree, Philippine Islands.

FIG. 7. Studying cotton with the aid of museum material.

Collection 102.—Other Cotton Products.

1. Cottonseed oil. Substitute for olive oil; also used for burning in lamps, soap making, and lubricating.
2. Cotton-oil cake. Used as cattle food and fertilizer.
3. Cottonseed meal. Ground cottonseed cake.
4. Cottonseed meal. Cattle food.
5. Cottonseed-oil soap and soap powder.
6. Cottolene. Cooking fat obtained from cottonseed oil.
7. Varieties of paper made from cotton stalks. The bark is separated from the stalk, carded, and heckled, and changed into a pulp from which paper is made.

Collection 103.—Manufacture of Cotton.

Glass case showing the various stages of manufacture of cotton goods.

Collection 55.—Paper Made from Cotton Stalks.

Varieties of paper made from cotton stalks. The bark is separated from the stalk, carded and heckled, and changed into a pulp from which paper is made.

Collection 56.

Implements used in the manufacture of cotton in the Philippine Islands: (1) Model of cotton crusher; (2) model of spooling apparatus.

Illustrations of cotton and cotton industry.

Collections.

104. Stereoscopic views. Cotton industry of various countries.
105. Cotton industry—Fifteen copies of one view—"Cotton pickers in the field."
106. Cotton industry—Fifteen copies of one view—"Cotton on the levee—New Orleans."

By means of the cotton exhibit the children are taken to the cotton fields, where they study the plant, the method of preparing the soil, the harvesting; to the cotton gin, where the seed is separated from the lint; to the markets to see the baling and shipping; to the large cotton factories where the lint is spun and woven into fabrics; and to the refineries to learn how cottonseed oil, oil cake, cottolene, and soap are made. How busy and successful human genius has been in devising more adequate contrivances to produce better fabrics and to supply the demands of the world for cotton goods more rapidly is shown by a comparison of the primitive and crude implements used by the inhabitants of the Philippine Islands with the magnificent machinery in the large eastern factories as represented by the stereoscope and lantern slides.

Additional illustrations of the cotton industry are offered by a well-selected collection of lantern slides. These slides may be used to great advantage when cotton raising is discussed in connection with the geography of the Southern States and the cotton industry

FIG. 8.—Group of fibers.

FIG. 9.—A coconut collection

in connection with the Eastern States. The collection consists of the following 17 slides

Lesson 1678.—Cotton.

1. Map of United States, showing cotton area.
2. Among the cotton plants. Negroes in field. Louisiana.
3. Topsy among the cotton plants. Louisiana. Little colored girl.
4. Home of a cotton picker. Mississippi. One-story cabin.
5. Bringing in the cotton. Storing it in log house. Louisiana.
6. A cotton gin. Exterior of rude house. Boiler under shed.
7. Cotton-press yard. Cotton packed in bales. New Orleans, La.
8. Cotton at railroad station. Packed in bales.
9. Cotton levee. Ready for shipment. Ocean steamer. Mississippi River. New Orleans, La.
10. Cotton factory. Fall River, Mass. (Iron Mills). Steam power.
11. Cotton factory. Cotton house. Fall River, Mass.
12. Cotton factory. Rear. Covered bridge connecting buildings. Fall River, Mass.
13. Cotton factory, carding room (English cards). Fall River, Mass.
14. Cotton factory-carding room. Fall River, Mass.
15. Cotton factory-spinning room. Fall River, Mass.
16. Cotton factory-weaving room. Fall River, Mass.
17. Cotton ready for sale. Interior wholesale house, St. Louis.

FLAX.

Reference Books.

Hanan—Textile Fibers of Commerce.

Toothaker—Commercial Raw Materials.

Principal Commercial Plant Fibers—Yearbook of United States Department of Agriculture, 1903.

Collection 118.

The flax plant is found in nearly every country of Europe and in the temperate regions of Asia, Africa, North and South America. In European countries it is cultivated chiefly for its fiber, which is spun into linen; in India and America for the seeds from which linseed oil is obtained.

1. Flax plant. 2. Flax fiber. 3. Flax fiber fabrics.

Collection 119.

Flax seed and its products: (1) Flaxseed. (2) Flaxseed, ground. (3) Linseed oils. (4) Linseed oil cake.

Illustrations of flax and flax industry.

Collections.

120. Steroscopic views. Various phases of the flax industry.

121. Flax industry—Fifteen copies of one view—"Flax taken from stacks to soak in river—Belgium."

Collection 122.

Spinning wheel.

Some years ago the writer of this bulletin listened to a reading lesson in one of our schools. The subject of the lesson was "Flax." The small pictures of the plant and the fiber in the text gave the

pupils but vague impressions of the things they read about. Upon inquiry he found that neither teacher nor pupils had ever seen the plant, the fiber, or pictures illustrating the various phases of the flax industry. The exhibit furnished by the museum will give the children a better idea of the importance of flax in the economic life of the people. Even the old-fashioned spinning wheel can be actually examined by the children.

FOOD PRODUCTS.

RICE

Collection 15.

Cultivated in marshy lowlands throughout the Torrid Zone and in the Temperate Zones as far as the thirty-sixth degree of latitude. Staple food of greater number of people than any other grain.

1. Rice plant, Texas.
2. Rice plant, Nicaragua.
3. Rice, unhulled, Madagascar.

FIG. 11.—Chart showing Chinese town.

4. Rice, hulled, South Carolina.
5. Rice, hulled and whitened, Mexico.
6. Glutinous rice, Siam.

Collection 16.

Rice Products: (1) Rice flour, (2) rice starch, (3) wafers made from rice. Illustrations of rice and rice fields.

Collections.

17. Stereoscopic views. Various phases of the rice industry.
18. Colored chart. The rice plant and its parts.

The pictures of the rice collection take the children into the rice fields of South Carolina, Nicaragua, Mexico, Japan, the Philippines, and Madagascar. They make the children see and understand that the soil in which rice is grown is low and marshy. In some of the countries the rivers overflow their banks and cover the fields for miles. People actually sow the grains in the water, and when the floods go down, the seeds sink into the soft mud at the bottom and spring up there. In the countries where the rivers do not help by overflowing, the people sow the seeds in trenches in spring and then

FIG. 12.—Studying Japan.

flood the fields. After several days the water is allowed to drain off, and the little plants are seen peeping through the soft, wet mud. When they are about 4 inches above the ground, the water is again let in and allowed to cover the field for about two weeks. This is repeated just before the grain ripens.

All this the pictures and articles tell the children. They tell also how rice is harvested, hulled, bleached, packed, and sent to all parts of the world, and how rice flour, rice starch, and rice paper are made. The stereographs and slides make the children acquainted with the people who are engaged in growing rice, with their manner of life, their homes, their state of civilization, etc. In this way the pupils

gain some conception of the importance of a soil product which is used as food by more people than any other single product.

CORN.

Few people are aware how many different things are made from corn. The following exhibits make the children acquainted with America's most important crop and all its products.

Collection 11.—Indian Corn or Maize.

Native of Mexico. Cultivated in nearly all parts of the world. Best development in North America.

1. Corn on cob, Missouri.
2. Flint corn, yellow, Nicaragua.
3. Flint corn, white, Argentine Republic.
4. Flint corn, red, Mexico.

Collection 12.—Corn Products.

1. Pearl hominy (corn hulled and coarsely ground).
2. Granulated hominy.
3. Corn meal.
4. Cornstarch.
5. Corn sirup, white.
6. Corn sirup, dark.

Collection 13.—Corn Products.

Complete collection of 19 bottles, showing various products of one factory: 1. Corn grains. 2. Corn bran. 3. Refined grits. 4. Gloss starch. 5. Laundry starch. 6. Pearl starch. 7. Powdered starch. 8. Dextrin. 9. Climax sugar. 10. Seventy per cent sugar. 11. Anhydrous sugar. 12. Corn sirup. 13. Neutral glucose. 14. Gluten feed. 15. American gum. 16. British gum. 17. Corn oil. 18. Corn oil cake. 19. Vulcanized corn oil.

Collection 14.—Illustrations of Corn and Cornfields.

Stereoscopic views. Corn and corn industry.

TREE PRODUCTS.

DOMESTIC WOODS.

Reference Books.

Apgar—Trees of North America.

Hough—Hand Book of Trees of Northern United States and Canada.

Keeler—Our Native Trees.

Lounsberry—A Guide to the Trees.

Matthews—Familiar Trees.

Rogers—Tree Book.

Stokes—Ten Common Trees.

The collections of domestic woods are mounted on slides, each of which shows a piece of bark, a longitudinal and a cross section of branch, the blossom, the leaf, and the fruit of a tree.

Collection 150.—Domestic Woods.

Woods of the following trees:

1. Horse chestnut. Throughout Europe and the United States. Wood coarse, easily split and durable. Used for railroad ties and fence posts.

2. Linden or basswood. Northern and Middle States. Fiber obtained from inner bark used for making ropes and matting. Wood much used in cabinetwork.
3. Papaw. Central United States. Along streams. Fruit yellowish and fragrant.
4. Beech. Abundant in the northern United States and Canada. Wood hard and heavy; used for many economic purposes.
5. Willow. Growing in damp places throughout the United States. Wood soft; used for carpentry and fuel; branches for basketry.

FIG. 13.—Chart of lime tree.

6. Poplar. Sandy soil. Throughout the United States. Wood white and soft and used for coarse work only.
 7. Silver poplar. A native of Europe, Asia, and Africa; has become naturalized throughout northeastern United States and Canada.
 8. Cottonwood. Variety of poplar. Mississippi Valley.
- Colored charts showing various domestic trees, their bark and leaf, with brief description.

Collection 168.—Illustrations of Lumber Industry.

Stereoscopic views. Illustrating lumber industry.

Collections.

169. Lumber industry—Fifteen copies of one view—"Scouring Logs and Hauling Them into Sawmill, Minneapolis, Minn."

170. Lumber industry—Fifteen copies of one view—"Stupendous Log Raft."

171. Lumber industry—Fifteen copies of one view—"Driving Logs Through a Narrow Channel."

FOREIGN WOODS.**Reference Book.**

G. S. Boulger—Woods.

Collection 212.—Foreign Woods: West Indies.

1. Ebony. Wood of large tree, native of southern India. Deep black, very hard, heavy, and fine-grained. Capable of very high polish. Used mostly for veneer.

2. Lignum vitæ. Blackish, with a greenish tint. Heavy, hard, strong, and close-grained. Difficult to split. Used for ships, pulleys, balls for bowling alleys, mortars and pestles, etc. Found also in Central America and throughout South America.

3. Red cedar. Wood rose-red to brown-red. Light, soft, brittle, and fine-grained. Obnoxious to insects. Used in cabinetmaking, for trunks and cigar boxes.

Fig. 14.—Typical wood collection in carrying case.

4. Granadillo or Rosewood. Red, handsomely figured, aromatic. Hard. Used for building and furniture.

5. Cabbage Tree Wood. Brown, hard, and durable. Used for mill rollers and in house and shipbuilding.

6. Avocado pear. Grown chiefly for its fruit.

If we could take our pupils into park and forest oftener and study with them the trees in their natural surroundings, their structure, their functions, their relations to man and animal, it would be better. But park and forest are far away from some of the schools, and so we bring as much of them into the schoolroom as possible. On boards 12 by 8 inches in size we show a piece of the bark, a longitudinal section, the same polished, a cross section, the leaf, bud, and fruit of all trees growing in the Mississippi Valley. The pupils observe, study, compare, and discuss these parts. They study large colored charts and photographs representing the tree and its parts.

Stereoscopic views and lantern slides make them acquainted with the industries to which the trees give rise—building, furniture making, introduce them into lumber camps, modes of transporting lumber, sawmills, etc. Then the children are asked to find the living tree, study it, and give the class the result of their observations. In this manner they not only become familiar with the trees but, what is far more important, they acquire an intense interest in the study of Nature and a desire to become acquainted with her in her own domain.

ANIMAL WORLD.

MOUNTED MAMMALS.

Reference Books.

Hornaday—American Natural History.

Holtz—Nature Study.

Linville-Kelley—Textbook in General Zoology.

Parker-Haswell—Zoology.

Stone-Cram—Animals.

FIG. 15.—A few typical specimens of mounted mammals.

Collections.—Mammals: Gnawing Animals.

921. Jack rabbit. Western United States and Canada. Largest of the rabbit family. Home beneath a clump or bush in the prairie. Feeds on vegetables, grass, and weeds. Flesh excellent.

922. Cottontail rabbit. Common in the United States. Digs its burrow in fields, groves, and meadows. Feeds on fruit, vegetables, grass, and weeds. Destructive to young trees by gnawing their bark. Flesh very good.

923. Guinea pig. Domesticated. Wild in the woods of Brazil and Paraguay, where it is called *Aperea*.

924. Red squirrel. Northern United States and Canada. Quarrelsome, noisy, and mischievous. Feeds on nuts, seeds of pine cones, corn, and vegetables.

925. Western Fox Squirrel. Western United States. Largest of the squirrel family. Feeds on wild fruit, berries, pine cones, and corn. Less provident in preparing for the cold season.

926. Gray squirrel. United States. In hollow branches or trunk of trees. Feeds on fruits, nuts, seeds, and vegetables. Lays in store for winter.

927. Flying squirrel. A squirrel or squirrel-like animal having a fold of skin like a parachute along each side of the body by means of which it is enabled to make long flying leaps through the air.

928. Ground squirrel or striped gopher. Western United States and Canada. Lives in burrows on the prairies. Feeds on nuts and grain, of which large supplies are put away for the winter months. Uses cheek pouches to carry off food.

929. Franklin spermophile or gray gopher. Western United States and Canada. Burrows among thickets in sandy soil. Food and habits like those of gray gopher.

930. Pocket gopher. Mississippi Valley. Burrows in the ground. Lives in communities. Nocturnal. Large cheek pouches opening outside of the mouth. Feeds on roots and vegetables.

931. Western chipmunk. Western region of United States. Among the rocks of the western mountains. Digs burrows in ground, in which it hibernates. Feeds on seeds, grain, berries, grasshoppers, and sometimes robs birds' nests of their eggs.

932. Meadow mouse or prairie vole. Upper Mississippi Valley. Inhabits old ant hills or burrows of its own digging in the prairies. Feeds on nuts, acorns, and grain. Does great damage by gnawing at stalks of corn.

933. Muskrat. Northern and central United States and Canada. Lives in shallow water, ponds, and river banks, using its vertically flattened tail for sculling. In fall constructs houses of rushes and mud. Feeds on roots, young shoots, and fresh-water mussels.

934. White-footed deer mouse. Central United States, east of Rocky Mountains. Most beautiful of mice. In woods. Makes home in hollow roots and branches of trees. Lays up store of nuts, grain, and seeds for winter.

935. Common house mouse. Known everywhere.

936. Brown rat. A rodent of some of the larger species of the genus *Mus*.

937. Prairie dog. Western United States. Lives in colonies in burrows on the prairies. Feeds on grasses and roots.

938. Ground hog or woodchuck. North America. Burrows in woods, prairies, and meadows. Feeds on roots and vegetables; especially fond of red clover. Hibernates. Peculiar superstition regarding its appearance on 2d of February.

939. Porcupine. Southern Europe. Natural armor of defense formed of sharp stiff bristles which may grow to the length of a foot. Nocturnal. Hibernates in burrows.

BIRDS.

The children know, as a rule, but few of the birds they see around them every day. Through judicious study of the mounted specimens in the schoolroom we awaken their interest and encourage them to go to the parks, to field, and forest, and find the living birds in their proper surroundings, to observe their song, their food, how they build their nests, how they protect themselves, etc., and then give the results to teacher and classmates.

One of the best parts of such training is that it instills in the children love and respect for nature. A bird ceases to be a target for cruel stones when it is looked upon as a friend of man, and as the means of saving the park trees from insect pests.

Collections.—Blackbirds and Orioles.

Migratory. Feed on fruits, seeds, and insects.

401. Red-winged blackbird. Eastern North America. Winters in Southern States. Found in low bushes or reeds in marshes. Feeds on wild rice, seeds, and insects.

402. Yellow-headed blackbird. Western North America. Generally found in marshes, sometimes in company with cowbirds following cattle. No singer.

403. Bronzed grackle. United States. Winters in lower Mississippi Valley. Feeds upon seeds, particularly corn, eggs, and young birds.

404. Great-tailed grackle. British Columbia. Winters in Southern States. Found in prairies and bushy swamps.

405. Purple grackle. Gulf of Mexico to Labrador. Gregarious. Prefers dense pine forests. Feeds on grain, grasshoppers, young birds, and eggs.

406. Meadow lark. Eastern North America. Winters in Southern States. Terrestrial. Protectively colored. Migrates in flocks. Song bird.

FIG. 16.—Owl collection.

407. Baltimore oriole. Eastern North America. Winters in Mexico and Central America. Feeds upon caterpillars and injurious insects. Highly prized for its beauty and song.

408. Orchard oriole. Common in temperate regions of the United States. Winters in Central America. In our orchards and about our homes. Much valued because of song, beauty, and insectivorous habits.

409. Bobolink. Northern United States and Canada. Winters in eastern portion of Southern States and South America. Frequents open fields. Very injurious to rice fields.

410. Cowbird. From Mexico to British America. Winters in Central and Southern States. Walks about among cattle, picking up small insects disturbed by cows in grazing.

Collections.—Foreign Orioles and Grackles.

557. Golden oriole. (*Oriolus Kindoo*.) India. Outskirts of forests. Very timid. Utters loud, plaintive cry. Feeds on fruit and insects.

558. Minor grackle. (*Gracula minor*.) Asiatic Islands. Special favorite in China. Feeds on insects and fruits. Very fond of cherries and grapes.

FIG 17.—Studying birds—Swimmers and waders.

SPONGES.

Reference Books.

Cooper—Animal Life in the Sea and on the Land.

Hartwig—The Sea and its Living Wonders.

Holtz—Nature Study.

Hyatt—Commercial and other Sponges.

Live sponges consist of jellylike bodies united in a mass and supported by a framework of horny fibers and needle-shaped objects called spicules. Found in all waters. Sponges for domestic use come from the Red and Mediterranean Seas, the Bahamas, and Florida.

Collection 347.—Horny Sponges.

Include all our commercial forms. Skeleton consists of horny fibers. Generally found in a few fathoms of water, on some rock or coral bottom.

FIG. 18.—Typical specimens of sea life—Nautilus and abalone.

1. Grass sponge. Coast of Florida. Cheapest commercial sponge.
2. Anclote grass sponge, Gulf of Mexico.
3. Sheep's wool sponge, Florida.
4. Cuba velvet sponge, West Indies.
5. Hardhead sponge, Florida.
6. Hircina, Florida.

The variety of form in this species from the flat and spreading to the vase-shaped and branching forms is almost endless.

Collection 348.—Horny Sponges.

1. Florida violet sponge, Florida.
2. Reef sponge, Algoa Bay.

FIG. 19.—The Honey Bee.

FIG. 20.—From the bird collection.

3. Rope sponge, West Indies.
4. Wire sponge, Gulf of Mexico.
5. Elephant ear, Mediterranean Sea. One of the most valuable toilet sponges.
6. Sponge imbedded in coral. Coast of Florida.

Collection 849.—Horny-Silicious Sponges.

The skeletons are formed of solid horny fibers and silicious or quartzlike spicules. Too coarse to be of commercial value.

1. Pipe sponge, Bahamas.
2. Finger sponge, West Indies.
3. Loggerhead sponge, West Indies.
4. Fringing sponge, West Indies.
5. Golden sponge, Algoa Bay.
6. Violet sponge, Bahamas.
7. Sea cake (Suberites). Cape Cod. Only sponge form which can subsist on the shifting sands. Pores so small that sand can not enter.

Collection 850.—Silicious or Glass Sponge.

The highest order of sponges. Have the skeleton almost entirely composed of silicious spicules.

1. Venus flower basket, Philippines.
2. Glass rope sponge, Japan.
3. Sulphur sponge (Cliona). Trinidad. Boring sponge. Penetrates shell of mussels, incloses, and dissolves it. Bores also into limestone.
4. Redbeard sponge (Macrocliona). Forms branching masses a few inches in height.
5. Sugar-loaf sponge (Tethya). Buzzard Bay. The threads at the bottom are curled together in a sort of wool. This catches all the small stones sifted out of the mud and enables the sponges to remain right side up.

Large and well-selected collections of mollusks, sponges, corals, etc., reveal to the child the secrets of the ocean and speak to him in interesting language of the inhabitants of the great waters, their structure, their functions, their manner of life, their ways of procuring food, shelter, and protection, the building of coral islands, reefs, and barriers.

ILLUSTRATIVE MATERIAL FOR HOME GEOGRAPHY.

Home geography, like nature study, deals with concrete material and, in teaching it, we must proceed as we would in nature work, either by taking the child to the material or the material to the child. The former method is as superior to the latter as it is in nature study. To give the children clear and lasting impressions of their physical and human environment, they should be brought into personal contact with these environments by the teacher.

Opportunities to study the physical conditions are offered by the many parks of our city which are within easy reach of most of our schools. In them we find roadbeds, slopes, hills, brooks, and ponds,

the careful study of which will enable the children to picture to themselves the features of land and water on the earth. For the study of the human environment, man and his wants, his industrial and commercial pursuits, opportunities are found in abundance in the immediate neighborhood of every schoolhouse. Shops, houses in the course of erection, quarries, etc., should be visited, and the actual work and conditions observed and studied, not in the vague, inaccurate way in which children may have looked at them before, but with a conscious and definite aim. Such lessons afford type lessons which give the teacher the most valuable opportunity for her work in the schoolroom.

FIG. 21.—Typical photograph showing quarrying.

On the other hand, many things with which the children must become acquainted in their first course in geography must be brought into the schoolroom. These are the materials for food, for clothing, for fuel, etc. Some of them may be supplied by the children themselves, and should be so furnished. But to give the children adequate ideas of the growth and development of this material; of the immense amount of labor, the tools, implements, and machinery it requires to cultivate or manufacture it, and to supply the world with it; of the number of people who find the means to exist in raising or manufacturing it; the wheat, corn, cotton, wool, silk,

coal, iron, etc., should be presented to the child in all the stages of their development. Such material systematically arranged can be furnished only by the museum. The weaving of material, the tools and utensils used by other peoples, such as mentioned in the "Seven Little Sisters" and "All Around the World," are illustrated by the real objects furnished by the museum. The different modes of transportation and the homes of people in foreign lands about which the children read are shown by excellent stereoscopic pictures.

MATHEMATICAL AND PHYSICAL GEOGRAPHY.

Collection 1565.—Advanced Geography—Expansion by Frost.

Apparatus: Test tube, copper beaker, cork. Fill test tube full of water, cork securely. Put into the beaker some cracked ice and salt, one-third salt, two-thirds ice. Set test tube upright into freezing mixture, put beaker on newspaper on desk. Wrap beaker in a towel to exclude heat that would waste ice. What occurs as the water in test tube freezes? Have pupils seen sidewalks raised by frost in the winter time?

Collection 1566.—Atmospheric Moisture.

Apparatus: Two-ounce flask, cork, some ice water, some hot water. Fill flask with ice water, cork securely. Invert and let flask stand two or three minutes on desk. Let pupils note formation of dew. Whence came the dew? Now empty flask and refill with hot water. Repeat as before. Note that no dew is formed. On what does formation of dew depend? Will hot air or cold air hold most moisture? If out of doors it is cold, try putting flask of ice water out of window. Let pupils see that cold air will not form dew in contact with cold flask, while hot air will do so.

Collection 1569.—Cloud Formation.

Apparatus: Two-ounce flask, test tube holder, Bunsen burner. Fill flask two-thirds full of water and hold over flame till the water boils. Remove flask and hold at open window for a moment. Let pupils see cloud of escaping steam. Have pupils seen such clouds before? (Steam escaping from engine exhausts.) Bring flask into room—cloud disappears. Why so? Can pupils tell why a morning mist disappears as sun rises? What is dew? Hoarfrost? Their cause?

Collection 1576.—The Seasons.

Apparatus: The tellurian. This can be used with profit to make clear to pupils the inclination of the earth's axis, the varying length of day and night, the difference of temperature between day and night, the succession of the seasons, the equinoxes, etc.

Mathematical and physical geography in the higher grades are considered by almost all teachers the most difficult part in the whole study of geography to present to the children intelligently and intelligibly. It is, if we teach them abstractly. We can not give the children clear ideas and permanent impressions of the shape of the earth, its rotation, directions, change of seasons, cloud formations, the cause and direction of winds, etc., through the textbook or verbal description. The children must see these processes by means of simple apparatus such as the museum furnishes, and the experiments with such apparatus should be performed by the children under

the guidance of the teacher. The whirling table will give the children a better idea of the true shape of the earth than the orange in the textbook. The real compass, not a picture, should be used by the children to determine directions. The simple apparatus of the collection given in the extract from the catalogue, if operated by the pupils, will give them vivid concepts of expansion by frost, atmospheric moisture, and cloud formations. No better device to present the difficult subject of the change of seasons can be found than the tellurian, which makes clear to the children the inclination of the earth's axis, the varying length of day and night, the difference of temperature between day and night, the succession of the seasons, the equinoxes, etc.

FIG. 22.—Studying cloud formation.

Of seacoast, erosion, volcanic action, geysers, divides, canyons, falls, and cataracts, of glaciers, of plains and deserts, no text or verbal description can give the children concepts clear and strong enough. Neither can this be done by the small, flat, illustrations in our textbook. We have excellent stereographs representing them. These stereoscopic pictures do not show flat photography, but supply double vision, giving three dimensions of a detailed diagram instead of two. The child, looking at a scene through the stereoscope, points

not at places on the flat view, but at things and places far behind it, and when he looks into the depth of the landscape he sees them all in their proper proportion and true relation.

SETS OF 15 STEREOSCOPIC VIEWS.

To give opportunity for a more intensive study of some of the more important topics of physical and commercial geography, sets of 15 views, each card showing the same picture, are furnished by the

FIG. 23.—German castle.

museum. A picture with holder is given to each pupil or each two pupils of a class—every room in the St. Louis schools is divided into two classes—and the teacher has a copy of the view. This arrangement enables the teacher to take her pupils into the situation which is the topic of the lesson. By discussing every detail in the picture, she makes them thoroughly understand, makes them live, what they discover.

Some time ago the writer heard a lesson on marble quarrying. By means of the picture,¹ of which each pupil had a copy, the children

were transported into the mine, as it were, and, under the tactful guidance of the teacher, they found their way into everything the teacher wanted them to learn. In previous lessons the various classes of rocks had been developed, and the order of deposition of the sedimentary rock was studied. The children had brought in samples of sandstone, clay, and marble, and the collection of rocks furnished by the museum had been used to show the limestone in its various degrees of hardness, viz, ooze, coquina, coral, chalk, and marble. After studying the ways in which the rocks were placed in the ground,

FIG. 24. —Chart showing Desert of Sahara.

a sandstone quarry was visited to observe the method of taking them from the earth. Then the method of quarrying marble was studied by means of a set of stereoscopic pictures, and the following outline used:

Location of quarry.

History of surface as read from picture.

Observation of the details of the picture: Discoloration, stratification, bedding, tunnels, water, pillars, method of drilling—Gadding machine, wedging, channeling machines, derricks.

Comparison with a mine.

Nature's compensations.

The compositions written by the children on the subject of "Marble" showed that they had thoroughly enjoyed their trip to the mine and had received valuable information and training.

The following is a list of the subjects illustrated by sets of 15 stereoscopic views:

Coffee:	Coolies picking coffee—Ceylon.
	Coffee from Porto Rico—Habana wharf, Cuba.
Coconut:	Natives in a coconut grove.
Cotton:	Cotton pickers in the field.
	Cotton on the levee—New Orleans.
Silk:	Separating silk cocoons from their nests—Japan.
	Gathering mulberry leaves for silk worms.
Flax:	Flax taken from stalks to soak in river—Belgium.

Lumi

Iron:	Steam shovel loading cars.
	Ladles emptying molten metal into molds.
Marble:	Marble quarry in Vermont.
Coal:	Cutting peat in the Allen bogs—Ireland.
	Miners entering shaft—Illinois.
	Digging into the hillside—Pennsylvania.
Seacoasts:	Rock and town of Gibraltar.
Volcanoes:	Fugiyama's vast, mysterious crater.
	Mallibon, strange river of fire—St. Vincent, West Indies.
	Crumbling ash deposits—St. Vincent, West Indies.
Erosion:	The Sinuous Colorado.
Geysers:	"Old Faithful" in action.
Divides:	The Continental Divide.
Canyons:	Down the river and canyon—Yellowstone.

FIG. 26.—Class studying Switzerland, with maps, charts, etc., from the museum.

Falls:	General view of Niagara Falls
Glaciers:	The great glacier of the Selkirk.
Deserts:	Second pyramids—Egypt.

WHAT MATERIAL MAY BE ORDERED FOR THE STUDY OF SOME OF THE COUNTRIES.

Hundreds of large colored charts help to make facts, conditions, and scenes in geography and history more real and lifelike.

As examples of what the teachers may order from the museum to illustrate the work in geography, the following exhibits may serve:

FIG. 27.—Harbor of Hamburg.

MEXICO.

Food Products.....	Sugar, coffee, black frijoles, tea, cocoa, vanilla, lentils, alfalfa.
Fibers.....	Jute, agave, sisal fibers.
Woods.....	Mahogany, ebony, rosewood, logwood, mora, laurel, guava.
Tree Products.....	Rubber, tanning bark, dyestuffs.
Medicinal plants.....	Jalap, cascarrilla, and others.
Birds.....	Motmot, Mexican trogon, coppery tailed trogon, toucan and others.
Minerals, Rocks, and Ores..	Silver, gold, copper, iron, lead, tin, onyx, cinnabar, asphalt.
Sponges.	
Mexican Life and History..	Home implements, articles of dress and ornamentation implements of war, idols.

- Industrial Products.....Pottery, vases, feather work, models of people following various occupations.
 Photographs.....Stereoscopic views and lantern slides.

BRAZIL.

- Food Products.....Coffee, cacao, sugar, vanilla, mate tea, cassava, ginger, algarroba, attalea, and para nuts.
 Fibers.....Cotton, piassava and agave fibers.
 Tree Products.....Rubber, copal, ipecac.
 Medicinal Plants.

FIG. 28.—The steppes of Russia.

- Woods.....Brazil wood, peroba, palisander, Palo d'Arco, guarabu.
 Birds.....Resplendent trogon, green trogon, parrots, yellow-throated toucan, pitta or ant thrush, chachalaca, and others.
 Insects.....Lanternfly, hercules beetle, Brazilian bee, giant walking stick, Coligo or owl butterfly, blue morpho, white morpho, thysania agrippina.
 Reptiles.....Iguana, basilisk.
 Amphibia.....Giant toad.
 Life.....Large colored chart—The tropical forest, photographs, stereoscopic views and lantern slides.

JAPAN.

- Food products.....Rice, tea, spices.
 Fibers and grasses.....Silk, jute, hemp, ramie, bamboo.
 Tree Products.....Camphor.
 Woods.....Sugi or Japanese cedar, Japanese hemlock, Kirni or iron-wood.

Birds.....	Green barbet, rose-ringed parakeet, Paradise fly catcher, Myna or crested starling, Drongo, gold bunting, rose and green finch, blue babbler, and others.
Minerals.....	Iron, copper, antimony.
Sponges.....	Venus flower basket, glass rope sponge.
Clothing.....	Various articles of clothing worn by Japanese men, women, and children.
Education.....	School work of Japanese children; written compositions, drawings, and domestic art work; 143 large photographs showing school life in Japan.
Life in Japan.....	Photographs, stereoscopes, and lantern slides.

PHYSICS.

(A few collections for the illustrations of elementary physics in the Seventh and Eighth grades.)

Collection 1507.—The Lever and Its Uses.

Apparatus: Simple lever, fitted with two weights. Test by putting weights at different distances, so as to balance in each. Prove that if load is farther from pivot (fulcrum), power must also be farther. Also, the contrary. Tell pupils several uses of lever, such as crowbar, scissors, poker, the forearm, etc.

Collection 1520.—Solid Expansion by Heat.

Apparatus: Copper ball and ring, alcohol lamp or Bunsen burner. Test cold ball and ring. Show that ball passes through ring. Now heat ball over lamp. Note how hot ball will no longer pass through cold ring. Why so? What has happened to ball? Plunge ball into water to cool. Wipe dry. Now heat ring. Show that hot ring is a loose fit to ball. Why? Ask children if they have seen blacksmith put tire on wagon wheel. If so, get some one to tell how it was done.

Collection 1549.—Lifting Pump.

Apparatus: Lifting pump, tumbler of water. Let pupils see the parts—suction pipe, cylinder, piston, piston rod and handle, suction valve, piston valve, spout. Ask them to watch working of pump, when suction pipe is put into tumbler and two or three strokes are made. Let some explain the use of each part. Can the pupils tell when the suction valve opens? Why? What is its use? When the piston valve opens? Why? What is its use?

For the illustration of elementary physics in the seventh and eighth grades the museum furnishes the schools the necessary apparatus. Iron, copper, and platinum wire, glass tubes, alcohol lamps and Bunsen burners, microscopes, sonometers, organ pipes, magnets, dry batteries, force and lifting pumps, air pumps, steam engines, etc., are sent to the schools upon requisition of the principal. The catalogue gives descriptions of easy experiments to be performed by the pupils.

INDUSTRIAL EXHIBITS—MANUFACTURE OF VARIOUS ARTICLES.

Reference Books.

Chamberlain—How We Are Sheltered.
 Clifford—Everyday Occupations.
 Lewis—Modern Industries.
 Patton—The Teacher's Aid.

CORK.

Outer bark of the cork oak found in southern Europe and northern Africa. Used for stoppers for bottles and casks, for artificial limbs, for inner soles of shoes, for floats of nets, etc.

Collection 195.—Cork Bark.

1. Cork bark in natural roughness, Portugal.
2. Cork ready for the market, Portugal.
3. Cork strips, Portugal.

Collection 196.—Processes Showing Manufacture of Cork Products.

Cork punching; cork tapering; cork gluing; handcut cork; split cork.

FIG. 29.—The cooper's shop. One of a series of charts showing various industries.

Collection 197.—Cork Products.

Cork paper; cork wood; cork caps and stoppers; cork fish bobbers; cork seine; model of sheet-cork insulation; cork handle; cork soles.

Collection 198.—Cork.

Case showing the development of cork products.

INK, PENS, NEEDLES, PENCILS, SHOES.**Collection 1471.—Manufacture of Ink.**

Glass case showing the different processes in the manufacture of ink.

Collection 1472.—Manufacture of the Steel Pen.

Glass case showing the various processes in the manufacture of the pen.

Collection 1473.—Manufacture of the Needle.

Glass case showing the different processes in the manufacture of the needle.

Collection 1474.—Manufacture of the Lead Pencil.

Glass case showing the different processes in the manufacture of the lead pencil.

Collection 1479.—Manufacture of Shoes.

Various processes in the manufacture of a shoe and the materials used.

The large number of exhibits showing the various stages in the manufacture of things in daily use, from the raw material to the finished product, are of the highest value. Properly presented and discussed, they enable the child to look into the social, commercial, and industrial life of a people. Few children ready to leave school have any idea of the great number of processes through which an object in daily use—the pencil, the needle, the shoe, or any similar article—has gone in its manufacture. They see only the finished product, and become accustomed to have millions of hands take care of them without even evincing any interest in those who thus serve them. As Dr. Kolar, of Vienna, says:

The children should be given some idea how much thought, how much care, how much labor there has been expended on the smallest object in use in life. They should learn to follow the evolution of everyday objects, should learn to discover what wonders created by inventive minds and human industry their immediate environment contains, what exertion and what amount of technical study are necessary to make the simplest utensils. We much teach the children to have greater respect not only for the wonders of nature, but also for the wonders of human creation.

HOW THE MATERIAL IS USED.

There is nothing in the traveling museum which can not be used in direct connection with the work of the schools. It contains no curiosities nor abnormities, no freaks of nature. It is not a "cemetery of bric-a-brac," but a nursery of "living thought."

The material is not simply shown the children as new and extraordinary things to satisfy their curiosity. The specimens of mammals, birds, insects, etc., the minerals, the natural and manufactured products of a country, in geography, for instance, are placed before the children to verify what they themselves have discovered through their own observation and reasoning as to the animal and vegetable life, the soil products, and the occupations of the people. The objects are handled, observed, studied, compared with each other and with such as have been considered in connection with other countries, and generally discussed. The pupils determine how the products before

them affect the life of the people, their industries and commerce, their intercourse with other nations, their place among the nations, etc. In many schools each child takes up one of the articles and by his reading gathers all the information he can regarding it and presents such information to the class.

Only such objects and pictures as the teacher really needs to give the children vivid and concrete images of what she aims to present should be sent for and used. To order a great deal of material for one lesson, much of which is only in remote relation to the subject and will tend to scatter the attention of the pupils, is not making the right use of the opportunities the museum affords.

FIG. 30.—Material used to render collections accessible and transportable.

A school museum properly used is a most valuable adjunct to every school system. It enables the schools to give the best sensory training, the aim of which is, as Dr. Judd says, the strengthening of the powers of observation and discrimination, the development of the ability to apprehend the objects of one's environment rapidly and accurately. The child must be given clear, concrete images of things and conditions with which he is to become acquainted. We have failed to do this; our teaching has been too abstract.

Care must be taken not to go to the other extreme, however. The use of illustrative material is, after all, only a means to an end. The right interpretations must be given; the abstractions must be made in due time, in order to give the child the ability to find his way into

the world and to adjust himself to his environment. The material must be so used as to awaken in the child a desire to learn more about the world in which he lives, and to cultivate in him the power to picture to himself facts, conditions, and influences which we have no means of illustrating.

THE TEACHER'S LIBRARY.

In connection with the Educational Museum a teachers' library was opened in 1905. It contains the best publications on philosophy, psychology, education, school management, science, and literature,

FIG. 31.—Teachers' circulating library and study room.

the textbooks used in our own and other countries, reports and courses of study of the schools of the United States and Europe, reference books giving information on all the material in the museum, and the leading educational and other magazines.

The teacher's library aims to put within reach of the teachers everything they need for professional study and self-culture, some of which the public library does not supply. Principals and teachers cooperate with the board of education in making the institution as complete and efficient as it should be. They are asked to state what they would like to have added to the library, and their suggestions and wishes always meet with ready consideration.

The number of volumes in the library is 8,000; 2,000 volumes of the private library of Dr. Soldan, late superintendent of schools of St. Louis, were presented to the institution by his widow.

A catalogue of the library is in the hands of each teacher. She may procure the books in two ways, by calling at the library to select the books she wishes to read or by inserting the title of the book or books in an order blank. The books desired are sent to her school by the museum automobile in the same way in which museum material is sent. The board of education makes it easy for the teachers to avail themselves of the opportunities offered by the library, and these opportunities are most extensively used.

THE MUSEUM IN ITS NEW HOME.

The Educational Museum, at its opening, was housed in some of the rooms of the Wyman School and the adjoining Teachers' College, and remained in these quarters for seven years. During this period the institution grew to such dimensions that the space assigned to it in the two schools became totally inadequate. In 1911 the Peabody School, Eighteenth and Carroll Streets, was closed, because many pupils had left the district, and the others could be taken care of in schools in the neighborhood. A part of the large three-story building, as much as is needed for all the departments of the museum, was so changed as to adapt it to the needs of the institution.

STUDY EXHIBITS.

A large part of the lower floor, including 64 by 32 feet on the north side, 32 by 32 feet on the south side, and the entire corridor, 75 by 15 feet, has been set aside for the display department. One or more collections of each kind sent out by the museum are displayed in proper sequence. These are the study exhibits. They enable the teacher to become thoroughly acquainted with all the museum contains; they make it possible for the teacher to acquire, with the help of the library, such information as may be needed to use the material intelligently and profitably. No normal school or teachers' college can give its students the general information in all departments of science which a modern teacher must possess to go far beyond the text of the book and make her work interesting and valuable. A museum arranged in accordance with the course of study and supplied with a good reference library can do this. The St. Louis teachers make good use of these study exhibits and show no hesitancy in telling how the study and the use of material have widened their horizon, how much better they are prepared for their lessons, and how much more pleasure and satisfaction they find in their work.

NUMBER OF COLLECTIONS.

The number of individual collections in the museum is 1,750; 7,000 individual and duplicate collections constitute the traveling museum. The number of lantern slides is 4,000, of stereoscopes 8,000, and of colored charts and photographs, 2,000.

ANNUAL INCREASE IN ORDERS.

How the popularity of the museum and the library has grown, and to what extent their use in the schools has increased, are shown by the following schedule:

Record of delivery increase.

School years.	Museum collections.	Teacher's library books.
1905.....	5,111	0
1906.....	11,830	300
1907.....	16,690	2,748
1908.....	19,153	3,368
1909.....	23,152	4,365
1910.....	29,039	4,790
1911.....	37,954	9,030
1912.....	42,994	12,471

EXTENT TO WHICH DIFFERENT GROUPS OF MATERIAL ARE USED.

The following extracts from the museum report state to what extent the different groups of material have been used and which groups are in greater demand than others.

Character of collections ordered, 1912-1913.

Nature of material.	Times ordered by schools.
Food products.....	7,078
Material for clothing and shelter.....	8,840
Mounted birds.....	10,388
Mounted insects and butterflies.....	1,503
Reptiles, amphibia, and sea life.....	2,637
Mounted mammals.....	2,984
Minerals.....	2,787
Pictorial illustrations, charts, and views.....	12,213
Material illustrating life of various countries.....	2,409
Apparatus for physical experiments.....	2,313
Lantern lessons.....	4,083
Miscellaneous material.....	64
Total number of collections ordered.....	57,299

Library—Classification of books issued, 1912-13.

Reference books, nature study, history, and geography.....	3,907
Philosophical and psychological books.....	1,715

	Times ordered by schools.
Pedagogical books.....	2, 214
Literature, English, ethical stories, etc.....	1, 761
Music and art.....	487
Magazines.....	2, 011
Renewals.....	376
Total number of books issued.....	12, 471

THE WORKING STAFF OF THE MUSEUM.

The working staff of the institution consists of the assistant superintendent in charge, a curator, two assistants, a librarian, a repairer, a checker, two packers, a chauffeur, and a janitor.

FIG. 33.—Checking room of Educational Museum.

VISITORS.

The museum is open daily, except Sundays, from 9 a. m. to 5 p. m. Visitors are always welcome. Frequently teachers take their classes to the institution after school or on Saturdays, not to give instruction, but to reward them for good work and to make them acquainted with what the museum offers. A large number of teachers from all parts of the country and some from abroad visit the museum every year. The total number of visitors in 1912-13 was 3,885.

Cost of maintenance, 1912-13.

	Expendi- tures.	Appropri- ations.
Salaries.....	\$7, 592. 00	\$7, 800. 00
Expenditures for museum:		
Delivery service.....	1, 800. 00	
Duplicate material.....	867. 41	
Permanent equipment.....	476. 20	
Perishable equipment.....	222. 50	
Supplies.....	108. 50	
Kinloch telephone.....	39. 54	
Fumigation.....	124. 30	
Postage.....	25. 00	
Car fare for lantern slides.....	80. 00	
Photographic account.....	9. 50	
Gas and electric light and power.....	48. 74	
Fire extinguishers.....	42. 00	
Drayage, carpenter's and painter's salary (moving to new building).....	403. 85	
	<hr/> 4, 620. 50	4, 700. 00
Total appropriation.....		<hr/> 12, 500. 00
The annual expense per pupil is 9½ cents.		

HOW CAN A SCHOOL MUSEUM BE ESTABLISHED?

In cities in which there is a public museum opportunities for systematic use of its material should be given the schools. The city museum should establish a school section; it should gather from its stores such material as can and should be used in the schools, and make it possible for the teachers to get it when they need it. This would benefit the museums as much as the schools. The number of people who visit the great storehouses of knowledge in the large cities is deplorably small. The boys and girls who are trained in the schools to use museum material will, when they have become men and women, visit the museum often and will make the most intelligent use of the opportunities they offer. Aided by one of Chicago's public-spirited citizens, Mr. N. W. Harris, the Field Museum of Natural History of Chicago is, at present, planning a systematic cooperation with the city public schools. The Harris Public School Extension of this institution will supply the schools with illustrative material taken from the great museum.

But even in places where there is no public museum, the establishment of a school museum is not as difficult a matter as it is generally supposed to be. A great deal of the material in daily use in the St. Louis schools can be had from commercial firms in the city and in other places, much of it for the asking. The United States Department of Agriculture, the Bureau of Fisheries, as well as privately

owned mines and quarries, will give from magazines and railroad and steam arranged and classified. With material nucleus and with purchases of other abroad, a serviceable school museum can of the school will readily contribute and might be used in the institution. Through the grateful recipient of a large number a few of which may be mentioned here St. Louis, presented to the institution a variety of minerals. Mr. J. A. Valentine Schmitt gave 12 large glass cases of insects, a supply museum can make up collections for Franklin gave the museum an extensive illustrating Mexican life and history. The mounted birds and the Garfield School various kinds which had been gathered of the school. Another principal sent gathered in the Philippines. The Miss gave the museum its comprehensive grown in the Western States. A number of large photographs representing oriental to the institution by Mr. James W. Be

OPINIONS OF MEN AND WOMEN IN

The writer feels that in order to give of the value of a new feature of school sent his own opinion, but should add that who do the work in the schools and wish to test the value of this new method of curriculum.

A number of principals of the schools College faculty were asked to state what as an adjunct to our schools. The following letters:

The success which we have in our work in physical education is due, very largely, to the valuable museum. It is true that some of the difficulties experienced are overcome in our schools by the extensive use of the park, river, and quarry does much to make some of the topics for instruction will show that not suffice. A glance at the course of study reveals and night, measurement of latitude and longitude, the earth's shape, the compass, atmospheric moisture, cloud formation, the seasons, winds, etc. The Educational Museum provides 25 valuable sets of apparatus which we use and find particularly well adapted to the illustration of these and kindred topics outlined in the course in physical geography.

FIG. 34.—Museum repair shop.

The introduction of exhibits of illustrative materials from the public school museum has met a much-felt want in our urban teaching. There are a few extremists in pedagogical theory who still maintain that it is useless to afford children specimens of natural or artificial life which are not directly involved in their own experiences. This principle would narrowly restrict the educational field, eliminating much that is taught and intelligently grasped in geography, natural science, and history. It would mean that the city-bred boy or girl never shall enrich his life with facts and principles that are witnessed only at first hand by those reared in rural districts. It is precisely because many children can not go forth and experience at first hand many of the interesting facts of nature and life that the museum is "put on wheels" and carried to their own schoolroom.

In my extension classes with teachers at the Teachers' College, I have found the museum of the St. Louis schools invaluable, if not almost indispensable. I have had large classes that have pursued the study of St. Louis industries from year to year, and we have found that the museum provides material that makes the whole industrial process clear from the raw material to the completed product. For instance, we have the textile industry in our city, and we can see there the processes by which the raw cotton is made into cloth, but we can not see in the factory how the raw cotton is produced, nor how all the by-products are used. Here the museum steps in and provides us with the necessary steps, so that we may have a complete, concrete history of the cotton textile industry from the time the seed is planted until the cloth comes from the mill. After the cloth leaves the mill, it is easy to follow it until it reaches the consumer. By the aid of the museum we can present the history of the boot and shoe industry; in fact, any of the numerous industries that are represented in our city. We can thus give a comprehensive understanding of our whole industrial life which would not otherwise be possible.

The other day I observed a very interesting review lesson on the Philippine Islands, in which the collections of articles used by the inhabitants and samples of Philippine products from the museum were used. As the lesson proceeded, each pupil went forward and, while exhibiting a certain article or product, recited upon it and its relation to the physical geography and life of the Philippines as best he could from what he had learned from previous study and recitations and from his own reading. This review lesson was full of life and meaning, instead of tiresome to both teacher and pupils, as too many review lessons are. The teacher questioned and suggested as she felt necessary, and the pupils asked questions about matters that were not made plain by the pupil reciting.

Over 150 lantern-slide collections are supplied by the museum. One of the best ways to conduct a lesson of this kind is to have each pupil in the class be responsible for collecting and reporting interesting matter upon one slide. As the lesson proceeds the pupils and teacher ask questions of the one reporting. If the lesson is a story, such as the "Pied Piper," the children may tell the story as the slides are thrown upon the screen. These pictures will give the children excellent suggestions for the illustrative drawing for seat work in language and reading. We have from 2 to 10 lantern lessons at our building every Thursday.

It requires, however, an intelligent use of this material, to produce proper results. The question of method must be worked out carefully for each lesson. A proper introduction, leading the pupils into the proper attitude and spirit, before the material is presented to them, is very essential. They must be prepared for it, and it must be introduced at the "psychological moment," if the best result is to be attained. As

far as possible the pupils, rather than the teacher, should handle and use the material. After the material has been examined and corrected, a summary, giving the application and conclusion, driving home and clinching the salient points of the lesson, should not be omitted. This done, "while the iron is hot," will add 50 per cent to the value of the lesson. There is danger, if this method does not receive careful attention, of the pupils regarding the material as merely amusing and of harmful training instead of beneficial training.

The museum material puts the child in direct touch with the real life and products of the foreign places. The stuffed birds and animals are those that live in the far-away land; coffee, tea, chocolate, bamboo, are the crops cultivated on the farms of strange people; the pictures of the people, of their homes, dress, and occupation, make the child almost as familiar with China, Brazil, or Russia, as he is with his own city.

With this material at hand, it becomes easy to teach our children brought up in a great lowland of the temperate zone, mountain life, torrid and frigid zones, and the industries, life, and customs of a foreign people.

The circulating collections of the Educational Museum serve, in some cases, as a supplement to the textbook; in others, the textbook is a more or less useful supplement to the museum collections. The relative importance depends upon the character of the collection, the text, and the teacher. The museum collections are not an educational fad or busy work, or a cure-all for lazy and indifferent teaching; they are a return to a first principle and a device to restore to classroom instruction the concreteness which, in too many cases, it has lost.

The collections have been especially useful in teaching foreign-born children natural history, geography, and English. Many of them have had considerable mental development in foreign schools in their native tongue, and need as fast as possible to get an acquaintance with their new environment and their adopted language commensurate with their development. To this end simple industrial pictures, typical landscapes, and stuffed birds and animals so disposed that all can see are a very great help.

Children literally clap their hands when the teacher uncovers Mr. Squirrel or the Blue Bird; and there is at once a new interest in the reading or language lessons on these subjects. Likewise the pictures—charts, stereoscopic views or lantern lessons—never fail to bring delight to the children and to enliven interest in the various subjects which they represent. Even if this were the only claim that could be made for them, our museum would be worth while.

Museum collections in my school, however, are not only interesting; they are exceedingly helpful to pupils in gaining many ideas that otherwise would be difficult, if not impossible, to get. Without them, children would fail in many instances through lack of adequate experience to secure the right imagery.

It is manifestly impractical to try to bring school children into first-hand relation with all the processes and objects concerning which we desire them to have quite accurate ideas. The city child is isolated, to a large extent, from nature, from agricultural, mining, and fishing processes and products, and in the present order of things even from industrial, transportation, commercial, and professional activities and results. These deficiencies in experiences gained in the natural routine of life

can be made up in a limited way by excursions to the country, the park, the factory, etc., but only in a limited way. St. Louis has attempted to lessen this deficiency of sense experience through the use of museum materials.

More than 50 per cent of the selections in the readers, used in the first three grades of the St. Louis public schools, are concerning concrete objects and dramatic situations that can be pictured and that are not usually present in the schoolroom. A smaller per cent of the selections in the readers used in the fourth to the eighth grades, inclusive, are of such a nature. In case of such selections, museum materials are very helpful.

Perhaps the best use that can be made of museum materials is in connection with geography teaching. By means of charts, stereoscopic views, lantern slides, typical costumes, etc., the shape, surface, natural scenes of particular beauty, grandeur, or uniqueness, the products of the fine arts, their symbols of patriotism and appreciation, the processes and products of agriculture, mining, forestry, fishing, and the varied industries, the leisure pursuits, dress and appearance, homes, etc., of a people and country may be more vividly and quickly impressed on the minds of the pupils than can possibly be done by the study of the printed page or by spoken words.

We raise a small plat of wheat in the school garden each year. After the wheat has been harvested, we send to the museum for the wheat products. The room that has had charge of the plat of wheat takes the products and prepares stories about each one, using encyclopedias, farmers' bulletins, and books from the library, as well as their geographies and reports of State bureaus.

An announcement is sent through the school that room X is ready to give a lecture upon wheat and wheat products at the nature study period of any room wishing them.

At the time appointed a group from the room that has been studying wheat goes to another room, and each one in turn makes a talk upon some phase of the wheat production, distribution, or manufactured products, illustrating the talk by means of the samples from the museum and the samples from the garden.

After they have gone, the teacher asks the children of the room visited to write letters to the visiting room telling them what they have learned from the lectures.

The following extract from a letter by a member of the faculty of the Teachers' College contains some valuable cautions and suggestions:

"The material in our school museum has been catalogued according to its serviceability for given subjects in the course of study, and provision has been made for the delivery of this material to any school when it is wanted. What is the teacher to do with it? Is she to hold up an object before the class and say, 'See, children, what I hold in my hand,' and then after a few superficial questions proceed as though the object were not there at all? If the objects are to serve more than a merely spectacular purpose, we must decide beforehand just what they are to contribute to the mental development of the child and what methods we must pursue to secure this development.

"The primary and obvious purpose in the use of any objects in instruction is to appeal to the senses of pupils; this means, to the senses of all the pupils in the class and not merely to those of the two or three pupils in the front seats. A method must be found by which this fundamental condition is met.

"Let us now examine, by reference to material typical of the public school museum, how and to what ends such material may be used. What is the purpose of introducing,

let us say, a stuffed squirrel into the schoolroom? Primarily, to give the child concrete images. But the stuffed specimen is, after all, a very imperfect specimen of a squirrel. It is not alive, it is not in its native habitat. It is not so much a squirrel as a symbol of a squirrel. To build up the concrete image, then, the teacher must help the child translate the stuffed specimen into a live animal. We think of an animal as alive when we think of it as functioning. It functions as it attempts to meet its needs, and it meets these needs by the use of such tools as it has, that is, the parts of its body. So, instead of asking, How many legs has this animal? What kind of claws has it? What is the color of its fur? What kind of teeth has it? We say, This animal lives in trees; sometimes it comes down upon the ground. Examine the specimen to see what keeps it from falling when it runs up a tree. How do you suppose it keeps from being caught by its enemies? It eats nuts. What tools can you find with which it may crack the nuts?

“It is by helping the primary grade pupil to realize that the animal has problems like some of our own and ways of solving them unlike our own that we may hope to attain the aim of nature lessons in the lower grades, namely, the development of sympathetic relations between the child and nature. Furthermore, if later these pupils have a lesson on the rabbit or the gopher, either in the same grade or in one above, a comparison of the animals studied will serve to develop the concept rodent.

“Abstract teaching is often condemned as though the abstract in and of itself were an evil. The real evil is our use of the abstract before the pupil has sufficient concrete experience from which to make the abstraction. It is an equally serious evil if the pupil never reaches the abstract, because he thereby fails to acquire the mental freedom which the use of the abstract gives him in the solution of the problems of life.”

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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, September 1, 1914.

SIR: The most important factor in any school is the teacher. With able men and women as teachers, well educated, well trained, and possessed of professional knowledge and skill and of a right understanding of the aims and purposes of the work of the school, almost any school may succeed regardless of all other conditions. With incapable men and women of the weak and negative type as teachers, uneducated, untrained, with no professional knowledge, unskilled, and having no adequate conception of the life the pupils are to live and the work they are to do or of how the school should help toward either, no school, however housed, or equipped with whatever apparatus, however organized, or whatever its courses of study on paper may be, can hope to do more than a small fraction of the good it should do. It may even do more harm than good. True of all schools, this is especially true of schools in the open country, villages, and small towns. Therefore, the preparation and efficiency of the teachers in these schools are matters of the greatest significance to the welfare of the country.

In order to ascertain, as nearly as possible, the preparation of teachers now in the rural schools of the country, the Bureau of Education undertook a year and a half ago an investigation based on 55 typical counties in different parts of the United States. This task was assigned to Mr. Harold W. Foght, specialist in rural education. An inquiry was sent to 6,000 teachers. Practically 50 per cent of these replied. The accompanying manuscript is the result of Mr. Foght's study of these replies. Since, in any inquiry of this kind, the better prepared and more successful teachers reply more readily than those less well prepared and less successful, it is quite certain that the actual average conditions are less favorable than this report seems to indicate. Of the 2,941 teachers replying, 4 per cent have had less than eight years of elementary schooling, 45 per cent have completed four years of high-school work, 32.3 per cent have had no professional preparation, and 3.2 per cent are normal-school graduates. Had all the 6,000 teachers to whom the inquiry was sent

replied, no doubt the first of these figures would have been considerably larger, while the second, third, and fourth would have been much smaller. However, the figures show conditions with sufficient accuracy to indicate clearly the need of a radical change in our rural school policy.

The brief accounts of some unusually successful rural schools, and of the efforts of some typical normal schools to adjust their work to the needs of those who are preparing to be teachers in rural schools and leaders in rural education, are very interesting and suggestive. I recommend that this manuscript be published as a bulletin of the Bureau of Education.

Respectfully submitted.

P. P. CLAXTON,
Commissioner.

To the SECRETARY OF THE INTERIOR.

PREFACE.

It is now generally conceded that our rural schools should be based on principles broad enough to produce an agricultural citizenship of highest ideals and filled with a desire to live their lives in the open country, in the intensive cultivation of the soil. This has called for a reorganization of the time-honored one-teacher school, now well under way in many sections of the country. In some localities, it is true, the small school will continue to be the only school for many years to come; but even in such places school work can be revitalized and redirected so as to answer more fully the needs of present-day agricultural life.

The reorganization of the prevailing system of rural schools aims to provide, within reach of all country children, carefully graded elementary schools and a sufficient number of rural high schools adapted to the particular needs of the rural community, in order that people in the country may procure a broad farm culture and the fundamentals of a scientific agriculture without going away from home. Through this means the schools should be enabled to produce the trained leadership required to put the rural population fully abreast of the many new problems in country life. Many factors enter into the problem of remaking the rural schools, such as well-prepared teachers, satisfactory unit of organization, close and intelligent supervision, and redirected course of study. Of these, none is more important than the first.

It is certain that the trained leadership needed in rural districts can not be fully realized until a staff of teachers, professionally trained, imbued with correct vision and real power, establish themselves in the rural districts as permanent teachers and community builders.

The teaching profession has recognized for some time that rural teachers are not generally so well prepared as they should be to cope with the difficult problems confronting them. Indeed, special preparation of rural teachers is a comparatively new thing in the United States. Some educators still hold that any teacher of reasonably good academic and professional preparation should be able to teach a good country school. This may be true enough so far as the universal elements of an education are concerned; but it is quite another thing when it comes to rooting the school to the soil and making it

answer the needs of the community where it is maintained. We prepare teachers for kindergarten work, for English, for Latin, and for other subjects. Why not also for rural schools, where the problems are many and increasingly complex?

Satisfactory data have long been lacking on which to base a campaign for better-prepared teachers. The purpose of the present study is to lend assistance in this direction. First, it seeks to ascertain the preparation and efficiency of the staff of rural teachers now at work in the schools; and, second, it aims to summarize and put into available form what the normal schools, agricultural colleges, and other schools are doing for rural teacher training.

The pursuit of the study has not been without its difficulties. The data used in the tables set forth in the following pages are the result of correspondence carried on with nearly 6,000 teachers living in all sections of the country, and with all the regularly listed normal schools and agricultural colleges. The teachers addressed were not always prompt in making reply, and sometimes had to be followed up to other communities, because their schools had closed before they could be reached. As a result of this the study has been drawn out over nearly a year and a half; but in return it is felt that the data, though representing only a small fraction of the whole number of rural teachers of the country, are sufficiently accurate to answer the purpose for which they are intended.

H. W. F.

EFFICIENCY AND PREPARATION OF RURAL SCHOOL TEACHERS.

I. EFFICIENCY OF RURAL TEACHERS NOW IN THE SCHOOLS.

METHOD OF PROCEDURE.

The first section of the study is based on a simple questionnaire addressed to nearly 6,000 teachers at work in the rural schools. It was deemed impracticable to communicate with all the large army of approximately 267,000 rural teachers in the field. Accordingly, a careful selection of numbers was made, by counties, in each of the 48 States, in such manner as to make this typical of all the several geographical sections of the country, with their own educational characteristics and peculiarities.

The final comparative figures are not based on the educational status of individual States, but on that of the States by grand divisions of the country, viz, North Atlantic, South Atlantic, South Central, North Central, and Western. It would have been eminently unfair to have based the figures upon a ranking by States, since it was necessary to limit the study to one or two typical counties in each State. It is believed that under the group system of comparison, involving as it does a range of from 8 to 12 typical counties to each geographical division, the study is sufficiently intensive for the law of averages to become effective.

As a first step of procedure, special collaborators of the Bureau of Education, residing in the different States, or the local State department of education, or both working together, selected for use in the investigation 3 to 5 counties typical of their particular States. The number of counties selected in this manner—192 in all—was further reduced to 55 before the correspondence began. These 55 counties appeared to contain all the marked geographical and topographical peculiarities of the grand divisions that might reasonably be expected to have influenced the local educational development to be found in the larger list of counties. For instance, the counties selected in the South Atlantic division represent every geographical variation; the Atlantic coastal plain, the Piedmont, the great mountain valleys, and the Appalachian belt are all included. In similar manner the

richness or comparative poverty of the soil and population, whether agricultural, mining, lumbering, or stock raising, native or foreign, black or white, have all entered into the final consideration.

The questionnaires were filled in and returned by 2,941 of the persons addressed, this being about 50 per cent of the total number on the lists. The resulting data were thereupon compiled and tested from other sources and tabulated, as will appear from a study of the following pages. Graphic charts have been added wherever it was deemed feasible.

Table 1, following, summarizes all the data by States and grand divisions under captions based on the queries sent out. It shows that 55 counties are included in the study, with a total of 2,941 teachers reporting. Of these, only 697, or a little over 25 per cent, are males. There are 529 men and women, or exactly 18 per cent of the whole number, who are married. There are 1,937 teachers giving instruction in eight grades or more, which means that fully 66 per cent of all the teachers have from 22 to 35 or more recitations daily. Very few teachers are provided with homes by the boards of education. Most of them board and lodge in the district where they teach, although 526 report that they do not reside in the school community. The length of teacher experience is a little more than 45 school months for each teacher, divided among 3.4 schools. The figures for academic preparation show that 117, or 4 per cent, of the teachers have had less than eight years of elementary school preparation; 950, or 32.3 per cent, have had no professional preparation whatever; and only 20 teachers report attendance at schools making a specialty of preparing teachers for rural schools.

TABLE 1.—Summary of efficiency of rural school teachers in the United States—PART I.

PRESENT RURAL TEACHERS.																11
Divisions and States.	Number of counties selected.	Teachers reporting.	Males reporting.	Females reporting.	Percent males.	Married teachers.	Unmarried teachers.	Grades per teacher in open country.		Number of teachers in the schools.			Teacher's residence.			
								Eight grades or more.	Less than 8 grades.	Country school.		Rural village.	Home provided by district.	Boarding in district.	Boarding outside district.	
										One teacher.	More than 1 teacher.					
North Atlantic:																
Maine.....	1	40	5	35	12.5	8	32	30	10	30	10	.....	4	31	9
New Hampshire.....	2	82	1	81	1.2	15	67	54	28	54	28	.....	2	70	12
Vermont.....	1	31	1	30	3.2	4	27	27	4	27	4	.....	3	24	7
Massachusetts.....	1	53	7	46	13.0	3	50	31	22	31	22	.....	0	47	6
Rhode Island.....	1	37	3	34	8.0	9	28	21	16	21	16	.....	0	25	12
Connecticut.....	1	51	8	43	15.6	3	48	20	31	20	31	.....	0	41	10
New York.....	1	139	13	126	9.3	23	116	110	29	110	29	.....	0	110	29
New Jersey.....	2	183	20	163	10.9	29	154	107	76	107	76	.....	2	148	35
Pennsylvania.....	1	89	44	45	49.4	25	64	65	24	65	24	.....	8	65	24
South Atlantic:																
Delaware.....	1	148	48	100	32.5	35	113	120	28	120	28	.....	6	93	55
Maryland.....	1	36	17	19	36.0	12	24	25	11	25	11	.....	1	32	4
Virginia.....	1	88	22	66	25.0	16	72	47	41	47	41	.....	3	81	7
West Virginia.....	1	88	62	26	70.4	27	61	79	9	79	9	.....	1	63	25
North Carolina.....	1	47	20	27	42.5	5	42	21	26	21	20	6	0	40	7	
South Carolina.....	1	49	15	34	30.6	12	37	22	27	22	27	.....	0	40	9
Georgia.....	1	17	5	12	29.0	0	11	9	8	9	8	.....	1	17	0
Florida.....	1	19	6	13	31.0	1	18	13	6	13	6	.....	1	17	2
South Central:																
Kentucky.....	2	51	34	17	66.6	18	33	40	11	40	11	.....	2	29	22
Tennessee.....	1	30	11	19	36.6	7	23	15	15	15	15	.....	1	29	1
Alabama.....	1	78	17	61	21.7	18	60	66	12	66	12	.....	5	70	8
Mississippi.....	1	27	13	14	48.0	8	19	10	17	10	17	.....	0	23	4
Louisiana.....	1	11	5	6	45.0	2	9	1	10	1	10	.....	0	9	2
Texas.....	1	26	8	18	30.7	4	22	15	11	15	11	.....	1	22	4
Arkansas.....	1	38	22	16	58.0	14	24	23	15	23	15	.....	0	34	4
Oklahoma.....	1	63	24	39	38.0	22	41	50	13	50	13	.....	0	56	7
North Central:																
Ohio.....	1	72	17	55	28.2	12	60	29	43	29	43	.....	0	50	22
Indiana.....	1	69	15	54	21.7	8	61	26	43	26	41	.....	0	47	22
Illinois.....	1	132	33	99	25.0	21	111	89	43	89	37	6	2	87	45	
Michigan.....	1	35	6	29	17.0	4	31	35	0	35	0	.....	0	27	8
Wisconsin.....	1	70	9	61	12.8	5	65	51	19	51	19	.....	0	66	4
Minnesota.....	1	100	18	82	18.0	6	94	57	43	57	26	17	4	97	3	

TABLE 1.—Summary of efficiency of rural school teachers in the United States—PART I—Continued.

Divisions and States.	Number of counties selected.	Teachers reporting.	Males reporting.	Females reporting.	Per cent males.	Married teachers.	Unmarried teachers.	Grades per teacher in open country.		Number of teachers in the schools.			Teacher's residence.		
								Eight grades or more.	Less than 8 grades.	Country school.		Rural village.	Home provided by district.	Boarding in district.	Boarding outside district.
										One teacher.	More than 1 teacher.				
North Central—Continued.															
Iowa.....	1	76	8	68	10.5	5	71	62	14	62	14	.....	2	48	28
Missouri.....	2	68	17	51	25.0	10	58	61	7	61	7	.....	0	60	8
North Dakota.....	1	88	21	67	22.7	15	73	70	18	70	18	.....	5	83	5
South Dakota.....	1	36	4	32	11.0	2	34	20	16	20	16	.....	1	32	4
Nebraska.....	2	64	7	57	10.9	1	63	51	13	51	13	.....	3	56	8
Kansas.....	1	76	11	65	14.0	7	69	57	19	57	19	.....	0	64	12
Western:															
Montana.....	1	49	3	46	61.0	2	47	31	18	31	11	7	1	45	4
Wyoming.....	1	25	2	23	8.0	2	23	25	0	25	0	.....	5	25	0
Colorado.....	1	64	7	57	10.9	6	58	37	27	37	18	9	1	58	6
New Mexico.....	1	19	5	14	25.3	8	11	8	11	8	11	.....	0	11	8
Arizona.....	1	46	12	34	26.0	16	30	36	10	36	10	.....	2	36	10
Utah.....	1	32	9	23	28.1	14	18	0	32	0	20	12	0	31	1
Nevada.....	2	20	2	18	10.0	3	17	20	0	20	0	.....	0	18	20
Idaho.....	1	41	7	34	17.0	6	35	15	26	15	26	.....	1	40	1
Washington.....	1	157	34	123	21.6	33	124	80	77	80	67	10	4	148	9
Oregon.....	1	40	11	29	27.5	12	28	27	13	27	13	.....	0	36	4
California.....	2	41	8	33	19.5	5	36	29	12	29	12	.....	1	34	7
United States.....	55	2,941	697	2,244	25.7	529	2,412	1,937	990	1,937	937	67	73	2,415	526

TABLE 1.—Summary of efficiency of rural school teachers in the United States—PART II.

Divisions and States.	Teachers' experience.						Academic preparation.						Professional preparation.													
	Age beginning teaching.	Present age.	School months taught.	School months in present school.	Different schools taught.	Average months in each school.	Elementary.		Secondary.		Normal school.		College or university.		No professional training.	Per cent not professionally trained.	Normal school.		School of education in college or university.		Agricultural school or college.		Secondary school.		Special summer school in various schools.	Special course for rural teachers.
							Eight grades.	Less.	Four years.	Less.	Complete course.	Less.	Complete course.	Complete course.			Less.	Complete course.	Long course.	Short course.	County training school.	Training course in high school.				
North Atlantic:	18.7	23.0	31.0	6.0	4.0	7.3	36	26	10	0	7	0	3	16	40.0	2	5	0	0	0	0	7	4	5	...	...
Maine.....	18.0	25.7	52.0	17.0	3.8	13.6	73	48	20	0	24	4	4	46	56.0	0	0	0	0	0	0	6	1	8	...	...
New Hampshire.....	18.0	22.8	45.0	11.0	3.0	15.0	30	23	6	0	4	1	0	12	35.7	1	0	0	0	0	0	1	12	4	...	...
Vermont.....	19.5	25.7	65.0	19.9	3.6	18.0	53	46	7	1	5	9	0	14	26.0	13	3	0	0	0	0	0	1	13	...	...
Massachusetts.....	19.0	30.0	79.0	23.0	4.0	19.9	34	24	13	1	9	2	1	13	35.0	10	1	0	0	0	0	2	0	5	...	...
Rhode Island.....	19.6	27.0	61.6	19.0	2.6	23.6	49	39	9	0	4	7	0	14	27.4	15	0	0	0	0	0	1	0	14	...	...
Connecticut.....	20.0	25.0	38.0	12.7	3.5	10.8	138	63	56	9	24	5	3	33	23.0	11	2	0	0	0	0	8	48	39	...	...
New York.....	18.0	24.0	67.0	27.0	2.0	33.5	175	99	31	4	47	6	7	90	49.0	3	0	0	0	0	0	19	6	27	...	...
New Jersey.....	18.0	26.0	59.0	22.0	2.0	29.5	83	8	45	11	62	3	1	10	11.0	6	3	0	0	0	0	0	1	7	...	...
Pennsylvania.....	19.0	22.0	35.0	10.2	3.0	11.6	144	45	60	4	15	3	4	79	53.0	1	0	0	0	0	0	53	8	39	...	...
South Atlantic:	20.5	31.0	96.0	36.0	3.0	32.0	36	9	20	1	8	4	4	18	50.0	1	0	0	0	0	0	0	1	3	...	...
Delaware.....	19.0	30.0	63.0	17.0	3.0	21.0	81	33	34	5	16	10	10	19	12.0	3	0	0	0	0	7	0	0	44	...	...
Maryland.....	19.0	30.0	63.0	17.0	3.0	21.0	81	33	34	5	16	10	10	19	12.0	3	0	0	0	0	7	0	0	44	...	...
Virginia.....	18.0	24.0	39.0	7.0	4.0	9.8	85	4	9	0	6	2	3	55	62.5	0	0	0	0	0	3	0	0	13	...	...
West Virginia.....	20.0	26.0	35.0	8.0	2.7	12.9	42	10	25	1	9	6	4	20	51.0	0	0	0	0	0	0	24	1	19	...	...
North Carolina.....	22.0	27.0	32.0	8.0	3.4	9.4	48	12	31	2	7	7	14	22	44.0	0	0	0	0	0	4	2	2	11	...	...
South Carolina.....	20.0	28.0	55.8	7.0	5.6	9.9	15	3	8	0	8	3	3	5	29.0	0	0	0	0	0	1	1	0	4	...	...
Georgia.....	20.0	28.0	55.8	7.0	5.6	9.9	15	3	8	0	8	3	3	5	29.0	0	0	0	0	0	1	1	0	4	...	...
Florida.....	17.9	25.0	40.9	9.0	4.9	9.2	15	1	16	0	11	0	3	3	15.0	0	0	0	0	0	1	1	0	6	...	...
South Central:	19.5	25.0	63.5	8.8	4.6	13.3	49	8	23	1	28	4	5	12	23.5	0	1	0	0	0	0	1	0	4	...	...
Kentucky.....	19.9	28.0	41.5	7.5	3.8	10.9	23	13	10	0	2	5	2	8	26.0	2	1	0	0	0	0	9	1	15	...	...
Tennessee.....	18.0	27.0	46.0	9.4	4.4	10.4	68	27	23	4	20	4	14	19	24.3	2	3	0	0	0	6	0	1	23	...	...
Alabama.....	20.0	25.9	22.9	10.6	3.0	7.6	27	7	7	1	1	2	6	18	62.6	0	0	0	0	0	0	0	0	5	...	...
Mississippi.....	19.0	25.0	50.7	6.0	2.0	25.4	11	6	5	1	2	2	1	4	36.0	1	1	0	0	0	0	0	0	6	...	...
Louisiana.....	21.0	24.0	27.0	8.6	2.8	9.8	14	7	7	0	12	0	2	9	34.6	1	1	0	0	0	0	1	0	10	...	...
Texas.....	19.0	24.0	44.0	8.6	5.6	7.8	34	3	17	0	4	0	6	27	71.0	0	0	0	0	0	0	16	1	4	...	...
Arkansas.....	19.0	24.0	44.0	8.6	5.6	7.8	34	3	17	0	4	0	6	27	71.0	0	0	0	0	0	0	16	1	4	...	...
Oklahoma.....	19.0	25.8	35.0	6.4	4.0	8.8	62	8	33	1	11	1	4	41	65.0	0	0	0	0	0	0	36	1	8	...	...

EFFICIENCY OF RURAL SCHOOL TEACHERS.

Divisions and States.	Teachers' experience.						Academic preparation.						Professional preparation.													
	Age beginning teaching.	Present age.	School months taught.	School months in present school.	Different schools taught.	Average months in each school.	Elementary.		Secondary.		Normal school.		College or university.		No professional training.	Per cent not professionally trained.	Normal school.		School of education in college or university.		Agricultural school or college.		Secondary school.		Special summer school in various schools.	Special course for rural teachers.
							Right grades.	Less.	Four years.	Less.	Complete course.	Less.	Complete course.	Complete course.			Less.	Complete course.	Long course.	Short course.	County training school.	Training course in high school.				
North Central:	19.0	25.0	39.4	17.8	2.4	7.1	72	0	61	11	1	32	5	13	10	13.9	2	6	4	9	5	1	0	0	39	2
Ohio.....	19.0	25.0	43.5	18.7	2.8	6.7	69	0	64	5	0	7	4	11	1	1.4	3	7	4	11	0	1	1	43	2	
Indiana.....	19.0	26.0	41.5	11.5	3.0	13.8	128	4	64	40	3	30	7	14	33	25.0	1	6	3	1	0	16	2	65	3	
Illinois.....	17.7	23.0	39.0	11.5	3.5	11.1	35	0	18	16	0	7	0	2	12	34.0	0	3	0	0	0	5	1	16	1	
Michigan.....	20.0	22.7	27.0	8.7	3.0	9.0	70	0	20	31	6	9	2	5	3	4.0	2	1	2	2	0	6	5	20	1	
Wisconsin.....	19.6	24.0	25.0	8.7	2.5	10.0	98	2	82	15	0	19	8	9	26	36.0	1	7	1	0	1	14	19	25	.....
Minnesota.....	18.5	23.0	31.7	9.2	3.5	9.1	76	0	34	2	0	7	2	11	50	65.0	0	1	3	0	0	40	2	13	.....
Iowa.....	19.0	24.0	45.9	10.6	3.0	15.3	66	2	35	22	2	17	3	14	16	23.5	0	2	5	0	0	2	1	21	4	
Missouri.....	18.0	24.0	30.8	9.5	4.0	9.7	88	0	30	35	3	23	9	7	35	39.0	0	0	3	0	0	38	2	25	.....
North Dakota.....	18.0	23.0	30.8	8.9	3.0	10.3	36	0	17	8	10	7	1	0	9	26.0	5	11	0	0	0	1	7	3	.....
South Dakota.....	18.0	22.8	30.0	11.8	2.5	12.0	62	2	38	16	3	12	0	6	3	4.7	5	7	0	0	0	7	16	20	.....
Nebraska.....	18.0	26.0	43.0	10.0	3.0	14.3	76	0	39	36	1	11	4	8	17	22.0	0	0	1	5	0	29	33	14	1	
Kansas.....	17.0	24.0	44.0	8.5	4.0	11.0	46	3	20	16	0	17	3	3	17	24.0	0	0	0	0	0	20	5	15	.....
Western:	20.0	26.0	25.0	3.0	3.5	7.1	25	0	6	14	0	3	1	1	9	36.0	2	1	1	0	0	2	0	11	.....
Montana.....	19.9	25.7	40.0	10.9	3.0	13.9	63	1	42	19	1	12	10	15	20	21.0	0	0	1	0	0	12	2	13	.....
Wyoming.....	20.0	35.0	58.0	9.8	3.0	19.3	18	1	13	4	1	1	2	2	11	57.8	0	0	1	0	0	7	0	4	.....
Colorado.....	17.6	31.0	65.0	9.6	5.4	12.0	43	3	20	14	3	14	8	13	13	28.0	0	2	0	0	0	12	0	20	.....
New Mexico.....	20.7	27.0	51.0	14.0	2.9	17.5	32	0	15	11	1	8	5	8	2	6.2	1	1	4	3	0	0	4	15	.....
Arizona.....	20.9	27.0	40.5	13.9	2.6	15.5	19	1	11	7	1	6	4	3	2	10.0	0	0	1	0	0	2	0	10	.....
Utah.....	19.0	27.0	46.8	9.9	3.8	12.3	41	0	20	17	2	15	2	3	2	4.8	0	0	0	0	0	5	3	24	.....
Nevada.....	18.0	25.0	45.0	12.0	4.0	11.3	152	5	80	50	11	34	10	25	26	15.0	3	0	5	0	0	7	3	83	4	
Idaho.....	20.0	28.0	46.0	9.8	4.0	11.5	40	0	22	14	3	8	4	7	9	22.5	0	0	2	0	0	8	7	11	.....
Washington.....	20.7	25.0	64.7	23.0	3.0	21.6	41	0	20	15	0	31	4	4	3	7.0	0	0	8	0	0	0	1	12	.....
Oregon.....	20.7	26.0	45.4	12.2	3.4	13.8	2,824	117	1,343	943	99	671	183	269	950	32.3	96	82	73	102	8	27	457	202	868	20
United States.....	19.2	26.0	45.4	12.2	3.4	13.8	2,824	117	1,343	943	99	671	183	269	950	32.3	96	82	73	102	8	27	457	202	868	20

TABLE 2.—*Efficiency of rural-school teachers—Averages by divisions of the country—PART I.*

[The table contains all the data of Table 1 reduced to averages by divisions of the country, in order to make it possible to grasp the figures at a glance.]

Divisions.	Number of States.	Number of teachers reporting.	Males reporting.	Females reporting.	Total per cent males.	Married teachers.	Unmarried teachers.	Grades per teacher in open country.		Number of teachers in the schools.			Teacher's residence.		
								Eight grades or more.	Less than eight grades.	Country schools.		Rural village.	Home provided by district.	Boarding in district.	Boarding outside district.
United States.....	48	2,941	697	2,244	25.7	529	2,412	1,937	990	1,937	937	67	73	2,415	526
North Atlantic.....	9	705	102	603	13.7	119	586	465	246	465	240	.....	19	561	144
South Atlantic.....	8	492	195	297	37.2	114	378	336	156	336	150	..... 6	13	383	100
South Central.....	8	324	134	190	53.1	93	231	220	104	220	104	.....	9	272	52
North Central.....	12	886	166	720	17.7	96	790	608	278	608	255	23	17	717	169
Western.....	11	534	100	434	23.2	107	427	308	226	308	188	38	15	482	52

TABLE 2.—Efficiency of rural-school teachers—Averages by divisions of the country—PART II.

Divisions.	Teacher's experience.						Academic preparation.						Professional preparation.									
	Age beginning teaching.	Present age.	School months taught.	School months in present school.	Different schools taught.	Average months in each school.	Elementary.	Second-ary.		Normal school.		College or university.		Normal school.	School of education in college or university.		Agricultural school or college.		Second-ary school.		Special summer school at various schools.	Special course for rural teachers.
								Complete four years' course.	Less.	Complete course.	Less.	Complete course.	Less.		Complete course.	Less.	Long course.	Short course.	County training school.	Training course in high school.		
United States.....	19.2	26.3	45.4	12.2	3.4	13.8	824	1,343	943	99	671	183	289	950	32.3	82	8	27	457	202	868	20
North Atlantic.....	18.8	28.33	55.3	17.3	3.2	19.0	674	376	197	26	186	37	20	248	34.0	14	0	4	44	73	122	0
South Atlantic.....	19.6	26.2	49.5	12.8	3.7	14.5	466	117	203	13	80	35	45	221	39.6	3	0	5	110	12	139	0
South Central.....	19.4	25.6	41.3	8.2	3.8	12.2	288	79	125	8	80	18	40	138	42.9	7	0	2	69	4	75	2
North Central.....	18.7	24.0	35.6	11.4	3.0	10.5	876	502	237	29	181	45	100	225	24.5	51	5	12	159	88	214	14
Western.....	19.6	27.3	47.8	14.9	3.6	13.7	520	209	181	23	144	49	84	118	22.9	7	3	4	75	25	218	4

MEN AND WOMEN TEACHERS IN THE SCHOOLS.

Diagram 1 conveys information that is highly significant. The solid lines represent the findings of the present investigation and

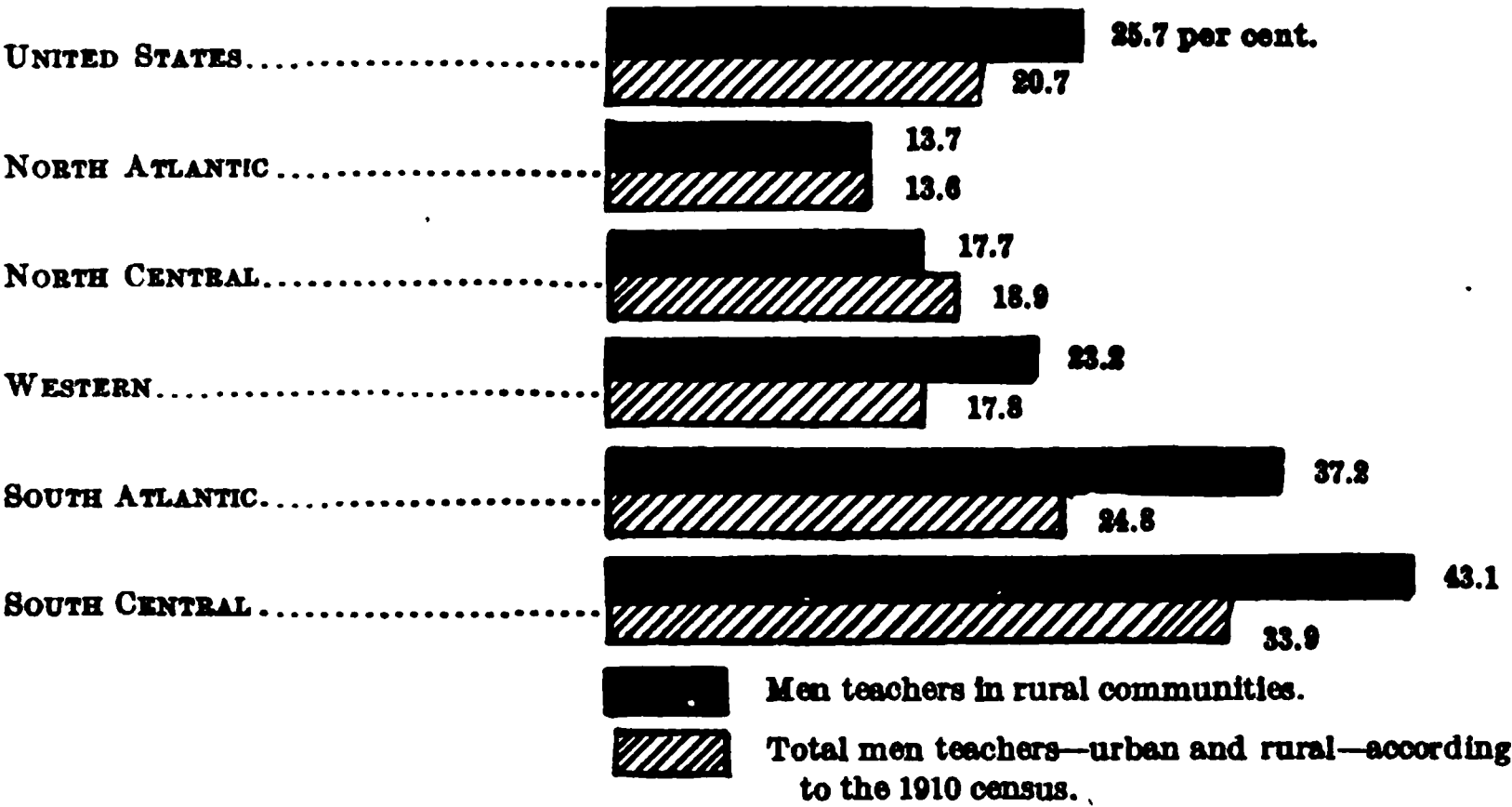


DIAGRAM 1.—Distribution of men teachers, by geographical divisions.

are limited to rural teachers. The barred lines give the results as ascertained by the Federal Census for 1910, and include all teachers, rural and urban. A comparison of the graphs discloses that 25.7 per cent of the rural teachers of the United States are men, while only 20 per

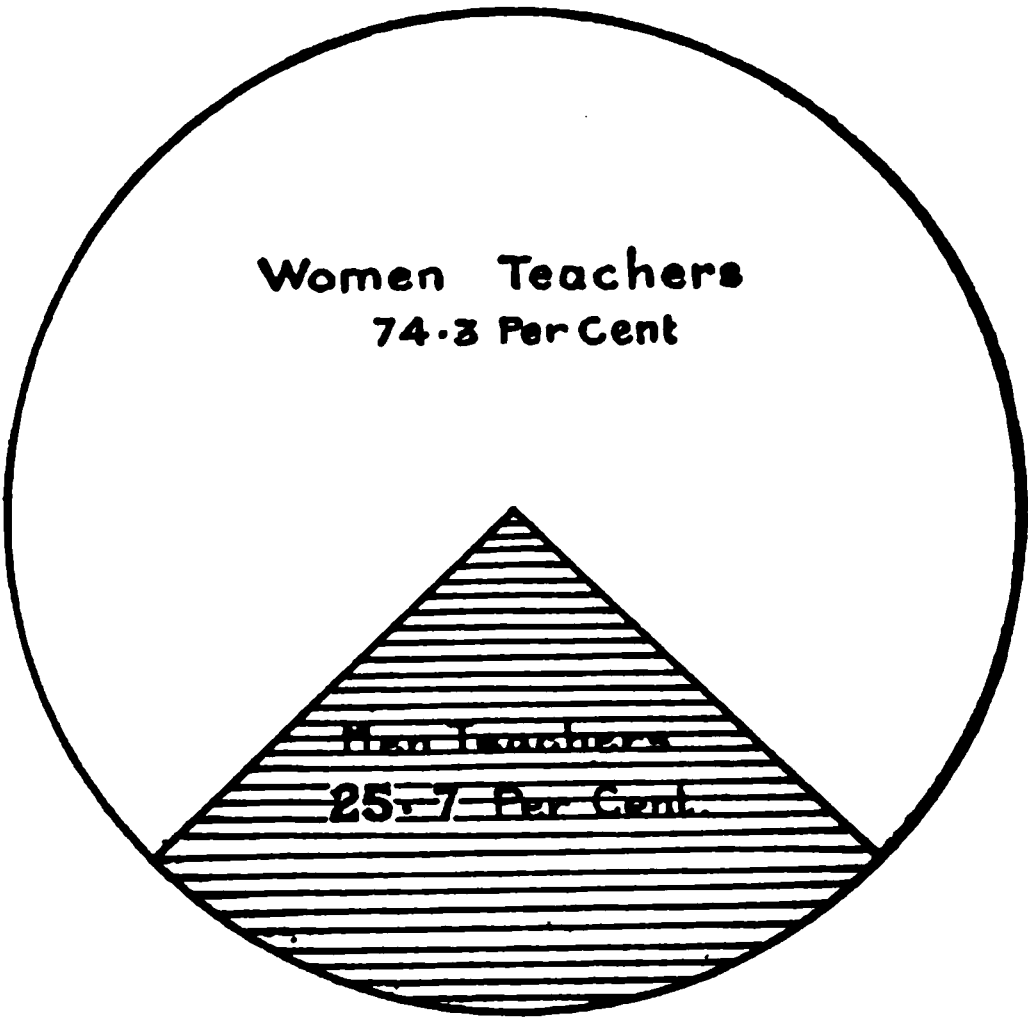


DIAGRAM 2.—Comparative number of men and women teachers in rural communities.

cent of the whole number of teachers for the nation are men. This is accounted for by the comparatively large percentage of men teachers in rural communities in the South Atlantic and South Central States. The North Atlantic division has only 13.7 per cent of men teachers in rural communities, while the South Central division heads the list with 43.1 per cent.

A further study of the statistics shows that men teachers in the North Atlantic, North Central, and Western divisions are, in the main, young and of limited experience, although a few of those reporting are well-prepared, mature teachers in thoroughly organized consoli-

dated schools and rural high schools. In the South Atlantic and South Central divisions the men are not only more numerous, but their average school tenure (diagram 8) is much longer. The average age for all men teachers in these sections of the country is also considerably higher than elsewhere, although their academic and professional training (diagrams 9 and 14) is much inferior.

The general conclusion drawn from the figures is that those sections of the country which have offered young men the greatest opportunities in a variety of callings and occupations have the smallest percentage of men teachers in the schools. Everything else being equal, a section of the country ought to be considered fortunate in having a large proportion of men teachers in its schools; but if it should prove that these men are in the schools chiefly because they can find nothing more remunerative to do elsewhere, conditions would be unfortunate, to say the least.

MARRIED AND SINGLE TEACHERS.

Diagram 3 shows the married rural teachers in the United States as 18 per cent of the whole number of teachers. The North Central

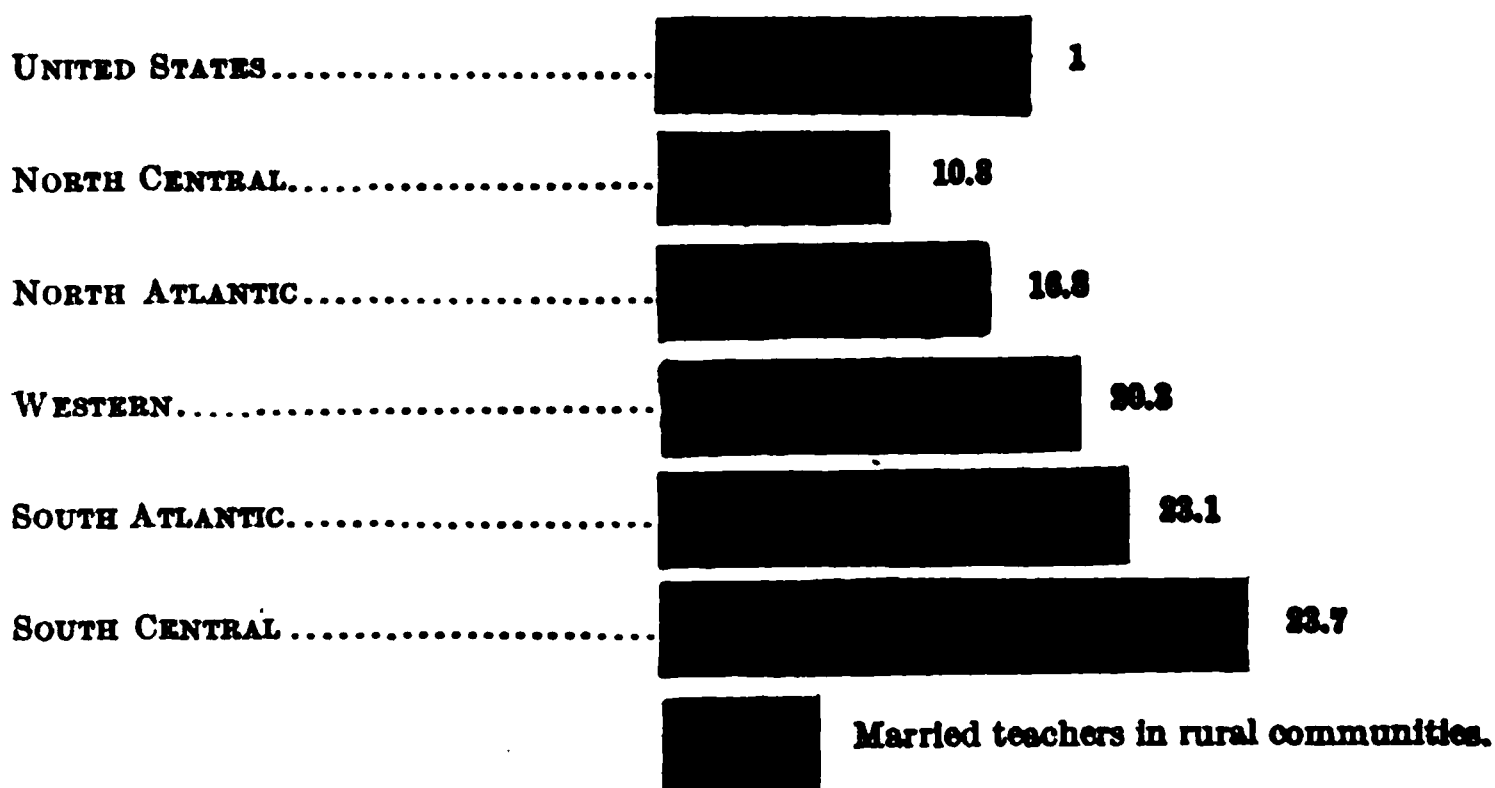


DIAGRAM 3.—Distribution of married teachers, by geographical divisions.

division has only 10 per cent, while the South Central division has 28.7 per cent. Clearly there is an intimate relation between the data for men teachers and for married teachers. The sections of the country with the largest number of men teachers have also the largest percentage of married teachers. The North Atlantic and Western divisions show a considerable number of married women teachers. In the former many of the women have reentered the teaching profession after marriage, forced, apparently, by stress of circumstances. In the West the disproportion in some places between the number of males and females may explain the comparatively large number of married women teachers there, most of whom remain in the schools only a short time after marriage.

ONE-TEACHER SCHOOLS AND MANY RECITATIONS.

The figures show that 1,937 teachers, or almost two-thirds of all reporting, teach eight or more grades each, and give daily instruction in from 22 to 35 classes. This means that recitation periods average 9 to 13 minutes each—a very short time in which to “hear” even the simplest exercises. Many States require the teachers to adhere to a State course of study, which tends to organize and partially grade the schools. Some of the teachers reporting have succeeded in reducing the large number of classes in the daily program by reorganizing the school on the group plan—i. e., combining the eight grades into three or four groups—and by a system of alternation and correlation of subjects.

Of the schools reporting, 937 report more than one teacher, 67 of these being village schools. The former include chiefly consolidated graded schools and rural high schools of the new type. This reorganization of the rural schools through centrali-

zation and consolidation seems to be the only solution of the prevailing system of a burdensome number of classes per teacher.

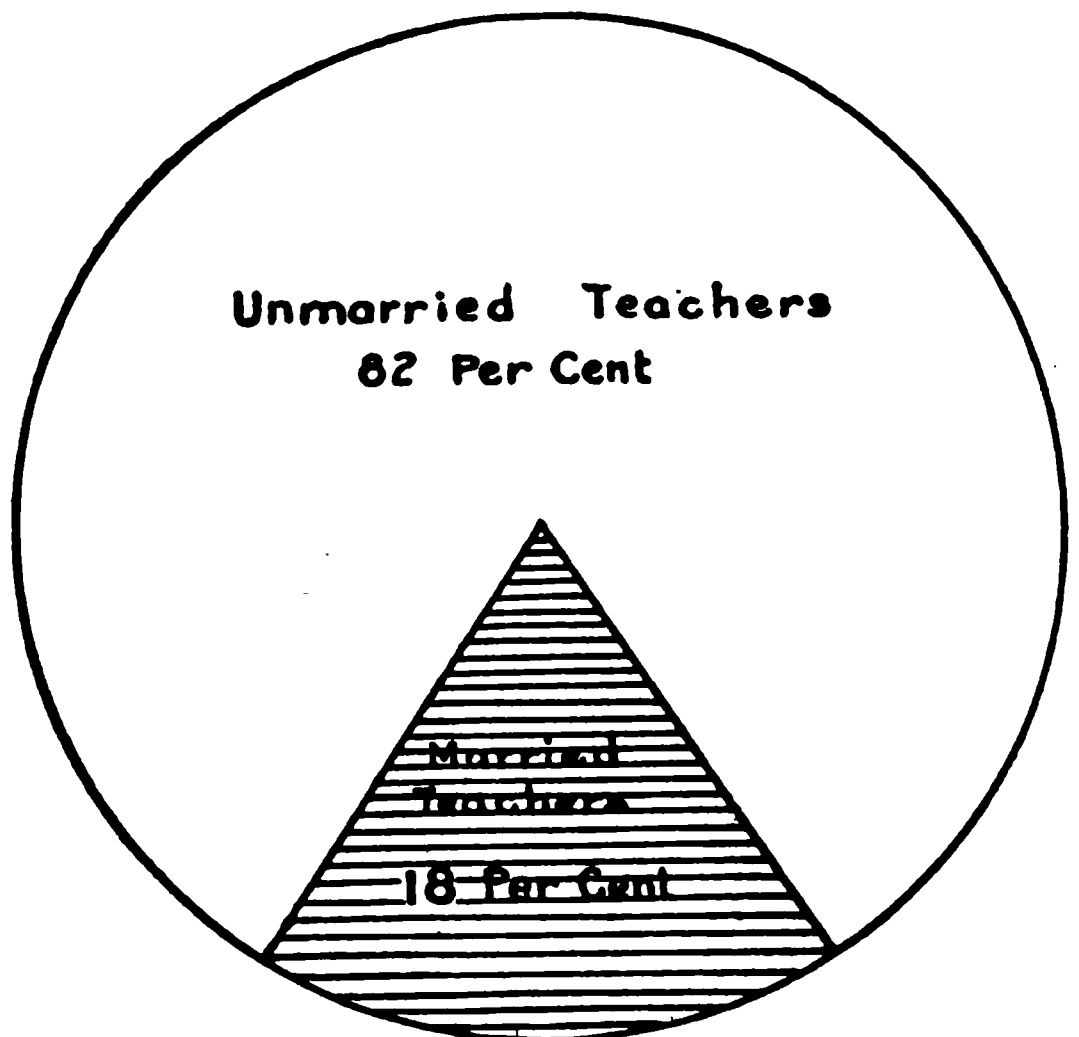


DIAGRAM 4.—Comparative numbers of married and unmarried teachers in rural communities.

RESIDENCE OF TEACHERS.

Of a total of 2,941 teachers, only 73 live in homes provided by the school community, 2,415 board and lodge in the community, and 526 spend the school day only in the district, having their homes elsewhere. It is evident that a teacher who spends only six hours each day for five days in the week in the school community will be unable to accomplish anything for community leadership. His labors are limited by the four walls of the schoolroom; he can neither understand nor sympathize with extraneous interests. The teachers who reside in the community throughout the school week do better, though many of them are likely to have their sympathies and vital interests in the village or city where they spend week ends. On the other hand, the teacher who has a permanent home provided

by the community finds it possible to become a permanent community leader. In the few communities reporting permanent

homes the teachers are usually able to project the school into the home and draw the home close to the school. Where teachers' cottages are provided, these, aside from making the teachers' own lives more attractive, naturally become the rallying centers for all community activities.

RURAL SCHOOL TENURES.

The average age when beginning to teach is 19.2 years for the entire country, and the age of the

DIAGRAM 5.—Percentage of rural teachers having 8 grades or more and less than 8 grades.

teachers at the time of reporting was 26.3. The average number of schools taught by each teacher is 3.4, and the average of school months is 13.8, or almost two years to a school, counting the average school year in the rural districts at 140 days. The total number of months taught by the average teacher is 45.4 school months, or about 6.5 school years. The North Central States make the poorest showing in every phase of school tenure, while the North Atlantic States hold the highest rank.

The data show better averages in school tenures than had been anticipated.

The large majority of teachers, however, fall far below these figures; but several hundred teachers report tenures ranging from 15 to 37 years, which tends to raise the average greatly. One

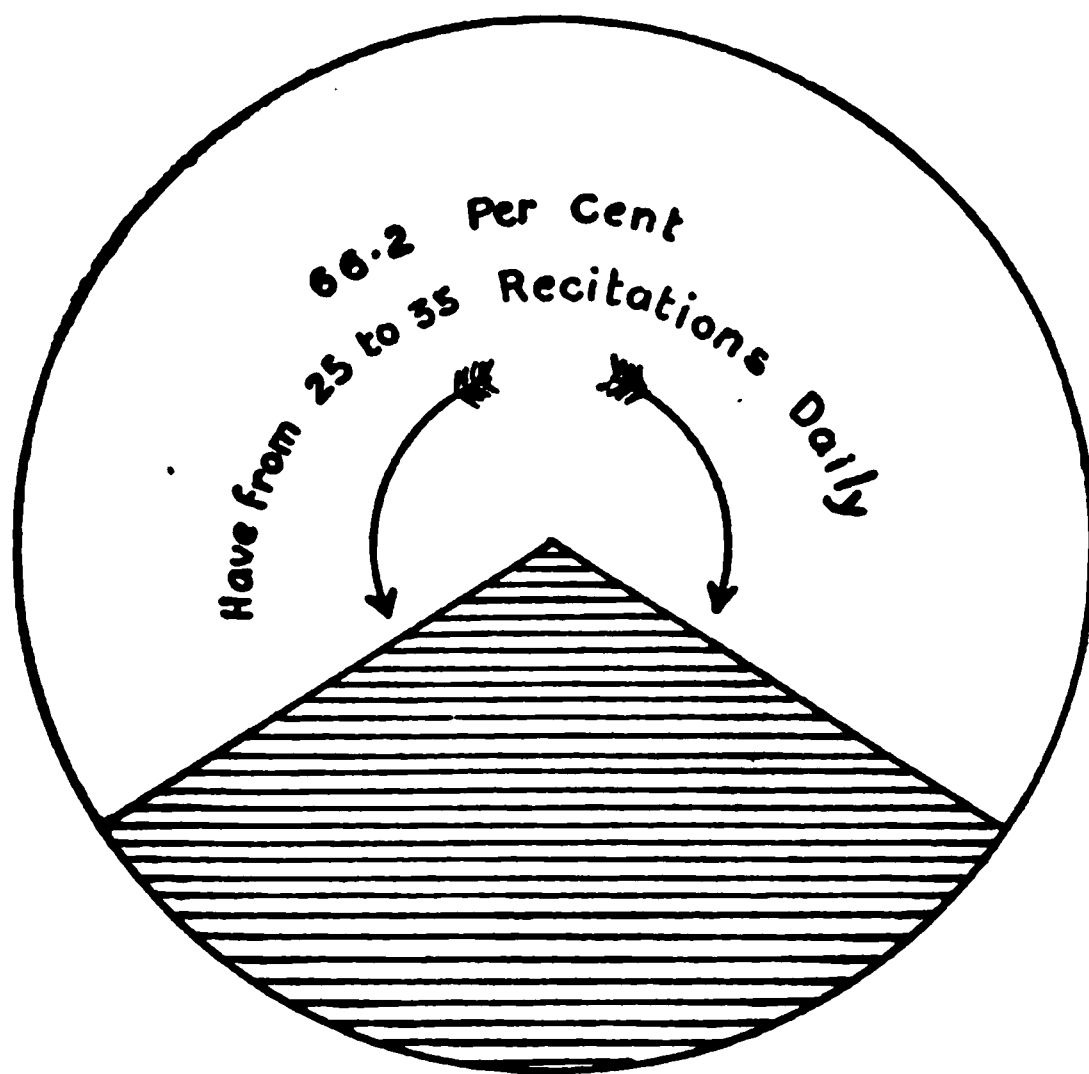
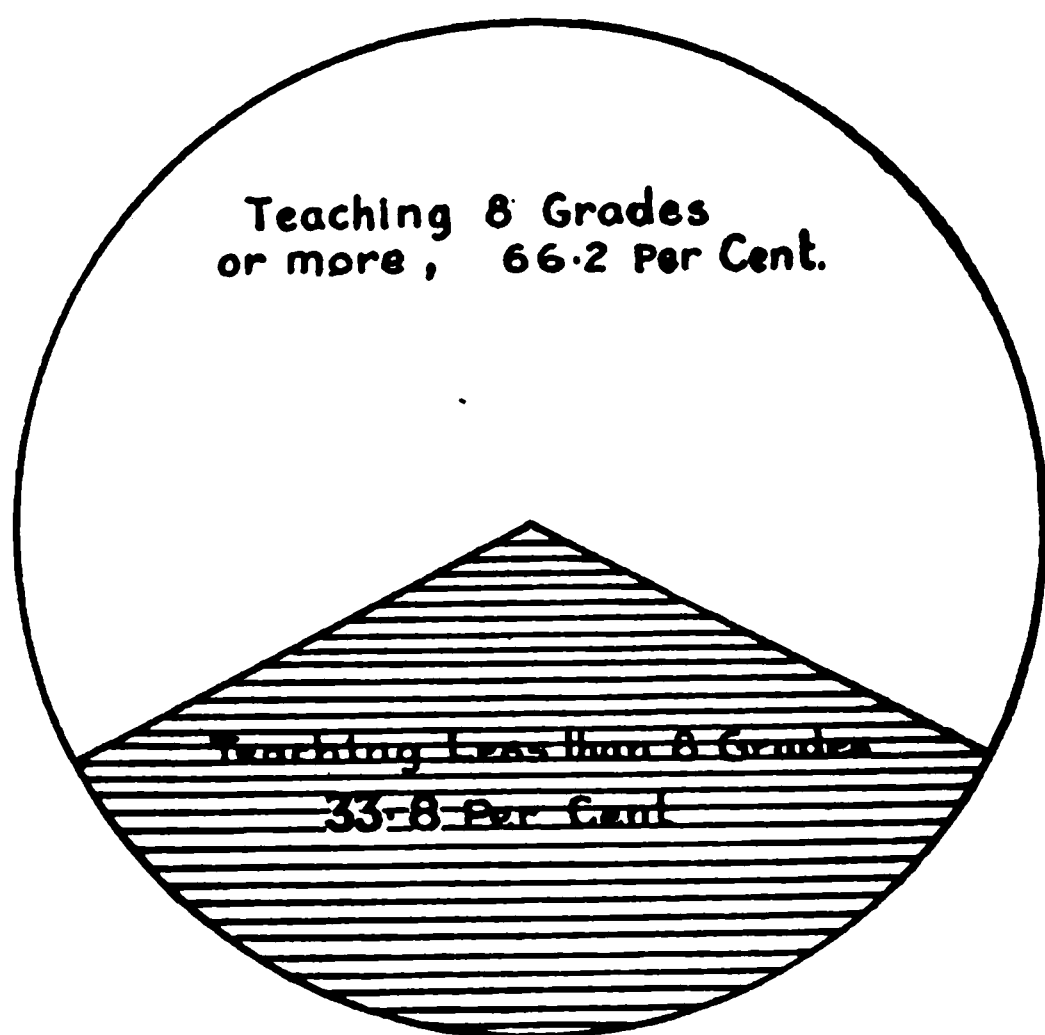


DIAGRAM 6.—Percentage of rural teachers having 25 or more recitations daily.

Georgia teacher writes: "I am 64 years of age and have taught 20 years." An Illinois teacher says: "I have taught 50 years. Can you tell me how many women in the United States have taught 50 years."

Probably the most vital phase of teacher tenure is the length of time spent in the same community. While there may be some danger of getting into ruts by remaining too long in the same locality,

[Each dot represents 10 or a fraction of 10 teachers.]

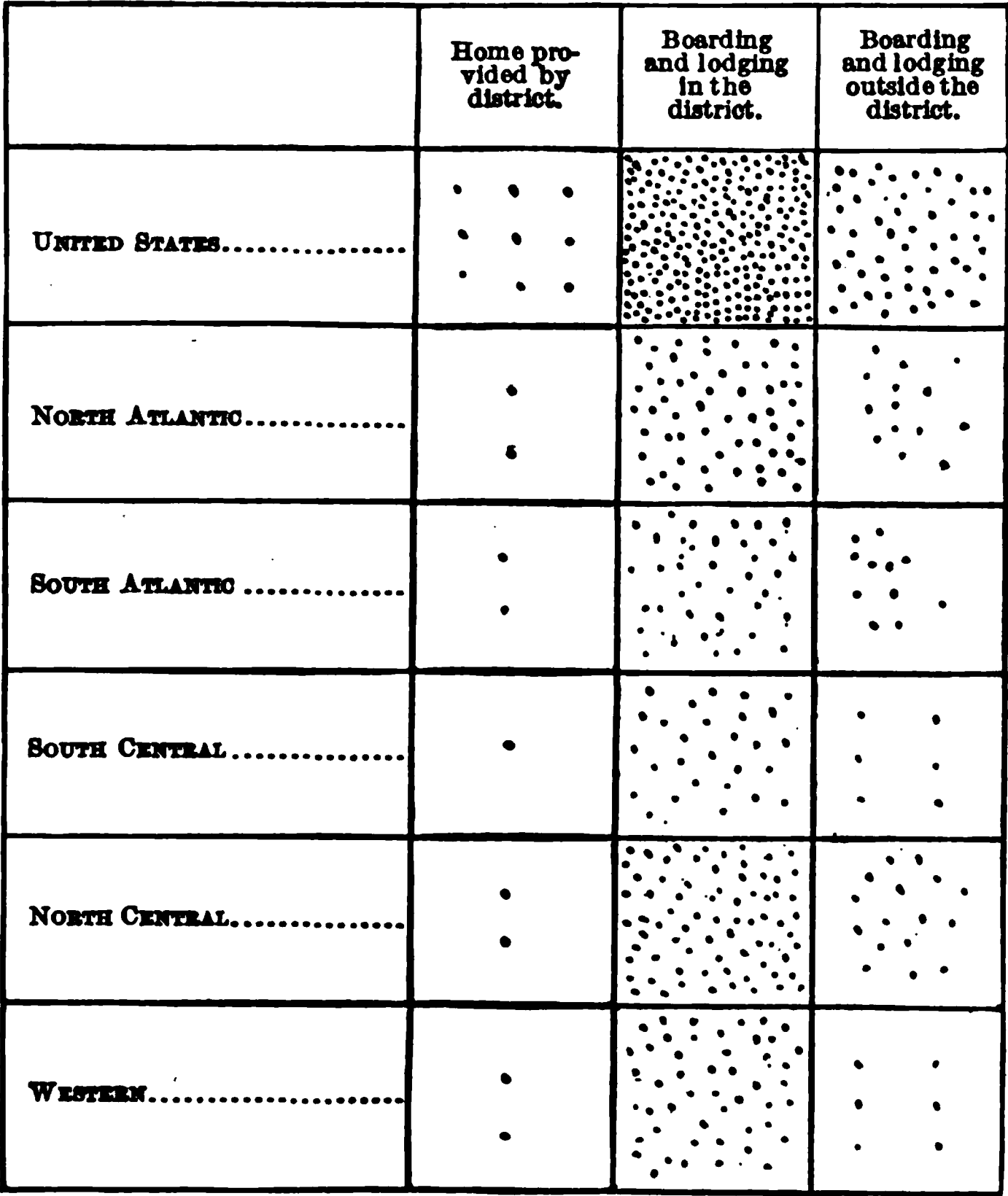


DIAGRAM 7.—Rural teacher residence, by geographical divisions.

there is vastly more harm likely to come from leaving it too early. The average time for each school in rural United States is a trifle less than two school years of 140 days each, or considerably less than one calendar year. This average is very much less for a majority of the teachers, the few permanent, professional teachers alone bringing it up close to the two-year level. So long as teachers continue to be peripatetics, the best results in community leadership can not be expected.

ELEMENTARY SCHOOL PREPARATION.

Diagram 9 discloses that 4 per cent of the teachers have less than eight years of schooling, i. e., they have completed less than the traditional elementary school. In some States, unfortunately, there is no academic standard of requirements aside from ability to pass an examination before a local county superintendent or other supervising official. As a result many half-taught young people, with little or no professional attainments, having but slight comprehension of the needs of country life, hold places in the schools and keep down the standards of efficiency. The North Central States have the best record in this respect, only 1.2 per cent of the teachers reporting less than eight years in the elementary schools. The

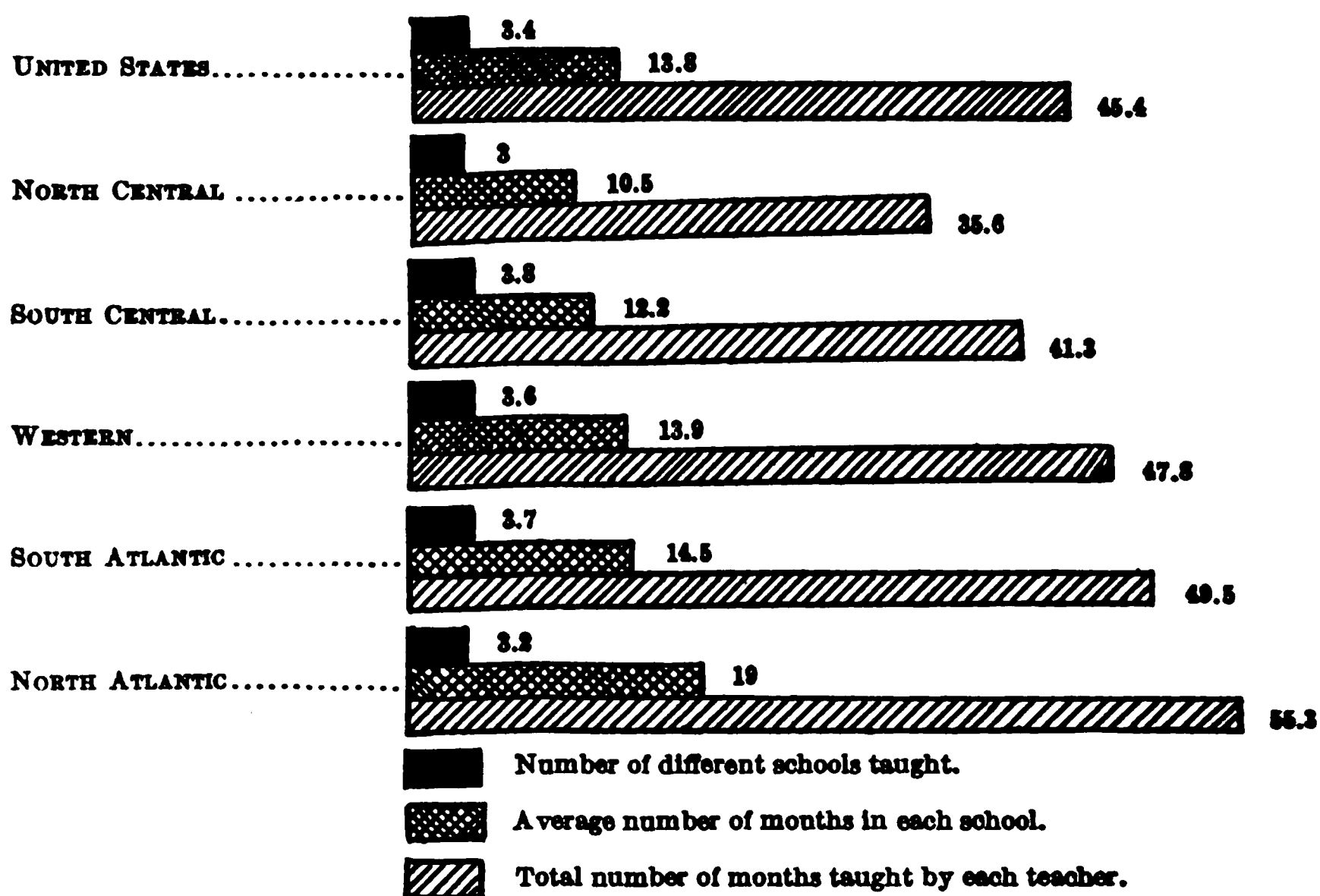


DIAGRAM 8.—Teacher experience by geographical divisions.

South Central States, on the other hand, make the poorest showing, with 11.2 per cent.

In order to grasp fully the startling inefficiency of many of the teachers in an academic way, one needs only to take a glance at a few of the letters received, two of which are reproduced below without alteration as to composition, spelling, thought, etc. The first was received from a young man in Florida who has been struggling upward and trying to make headway against almost insuperable difficulties. He writes a pathetic letter, that at the same time shows an amazing degree of unpreparedness for the task of his life-calling:

I spent 12 months in Rocky spring School when A child 10 years old 6 months in the Fla. Inst. when I was 19½ years old This is All I have ben except taking a corse through the mail

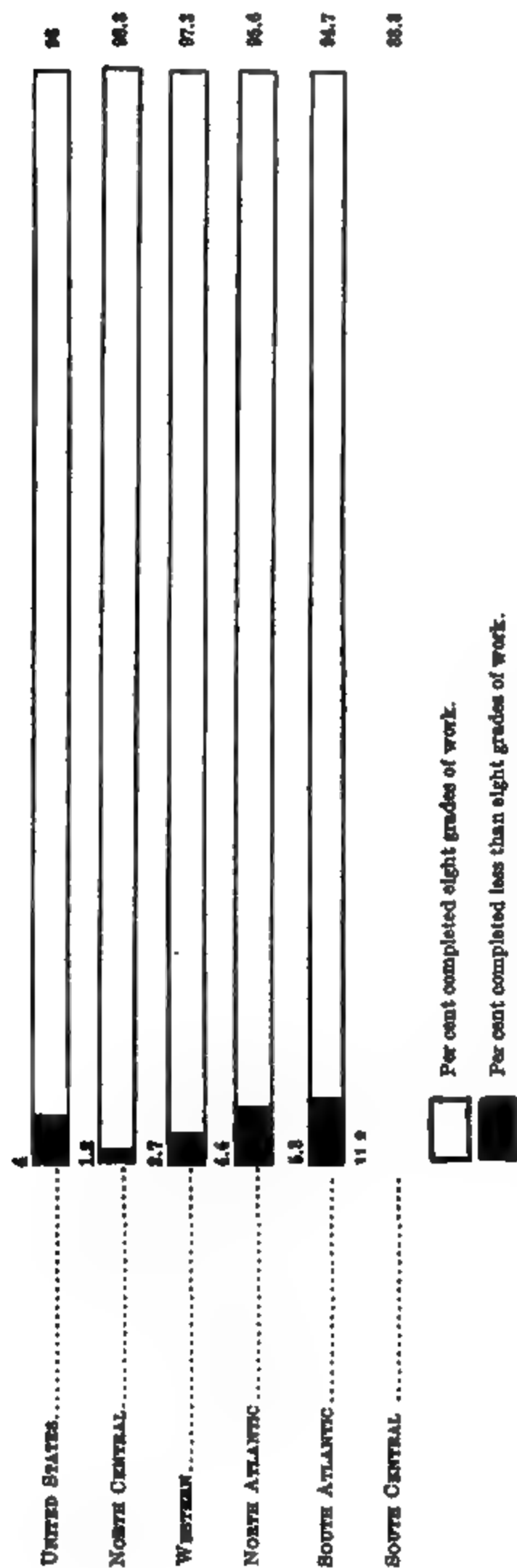


DIAGRAM 9.—Elementary academic preparation of rural teachers.

P. S. Please excuse this As my hand is a little hurt, I havent any farther to help me. and I had to take care of a mother and grandmother all my life, Though I entend to be a man some day, If you can help me to success I will be very thankful and will do what ever is in my part are is required of me to do.

This brief statement comes from a Georgia teacher, who has spent many years in the service:

I am single, 64 years old and have taught 20 years. Most of my trayning under a Governest. Some of my schools 6 months some 8 months. I allways give Good Results to my Patrons. I Teach all of the Grades to 7th.

ACADEMIC PREPARATION ABOVE THE ELEMENTARY SCHOOL.

It is needless to say that every teacher, even in the poorest communities, should be able to write an intelligent letter, having due

regard for thought, spelling, capitalization, etc. Yet surprisingly large numbers of the teachers made little better showing than the two quoted above.

In general, no teacher should be permitted to teach in the schools who has not completed a high-school course or its equivalent. Without such preparation the teacher can not have the necessary reserve store of information to draw from as occasion may demand; he is in con-

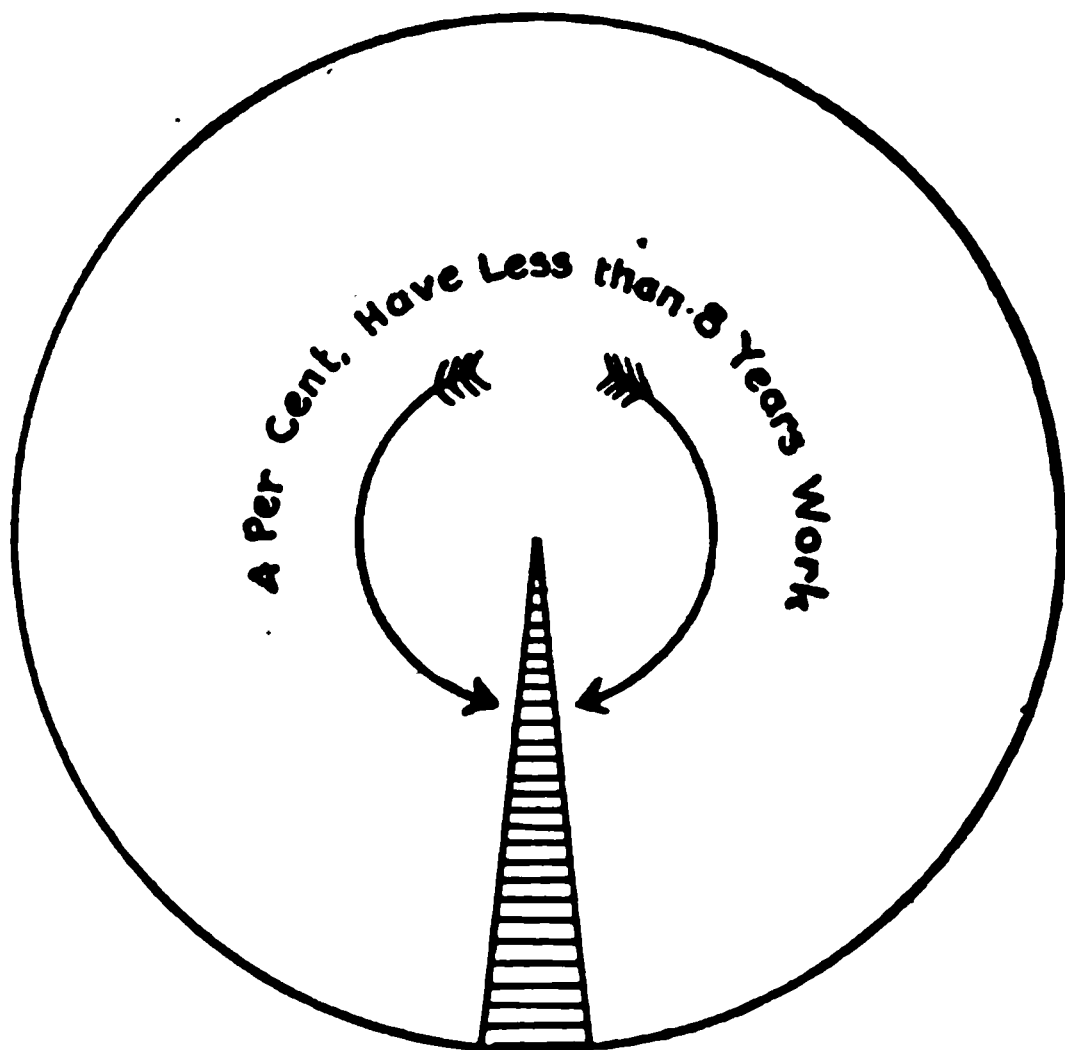


DIAGRAM 10.—Percentage of rural teachers having had less than eight grades of elementary school preparation.

stant danger of getting into ruts; and his educational vision becomes hopelessly narrowed and indistinct.

The investigation shows that 1,343, or 45 per cent, of the teachers have completed a four-year high-school course. Of the rest, 943 have spent some time in high-school attendance, 99 have completed full courses at normal schools, and 671 have had partial courses in these schools. Finally, 183 have completed full university or college courses, leading to bachelors' degrees, and 289 have taken partial courses.

These figures are encouraging. Moreover, recent school legislation on teacher certification, would indicate that academic minimum requirements are being uniformly raised. Very soon, probably, most of the States will have set their standard at a four-year high-

school minimum. Many States have already attained this desideratum, and others are striving toward it step by step.

PROFESSIONAL PREPARATION OF RURAL TEACHERS.

Diagram 12 shows the startling fact that 950 of the teachers, or about 32.3 per cent, have had no professional preparation whatever for their work. This poor showing is in spite of the fact that the term "professional preparation" has been interpreted in the present

[Each dot represents 10 or a fraction of 10 teachers.]

	High school or academy.		Normal school.		College or university.	
	4 years.	Less.	Complete course.	Less.	Complete course.	Less.
UNITED STATES....						
NORTH ATLANTIC..						
SOUTH ATLANTIC...						
SOUTH CENTRAL...						
NORTH CENTRAL...						
WESTERN.....						

DIAGRAM 11.—Academic preparation of rural teachers above the elementary school.

study in a most liberal way. Under this head have been included not only regular courses in normal schools, schools of education in colleges and universities, professional courses in agricultural colleges, and high-school training courses, but also summer courses and other short courses in reputable institutions. Short-time teachers' institutes and superficial review courses only have been excluded from the count.

The Western States stand first, with only 22.9 per cent not professionally prepared. The North Central States come next, with 24.5

per cent. The South Atlantic and South Central States show, respectively, 39.6 per cent and 42.9 per cent.

WHERE THE PROFESSIONAL PREPARATION WAS ATTAINED.

Out of the total 2,941 teachers, 96 have complete normal school courses to their credit, and 82 others have taken partial courses

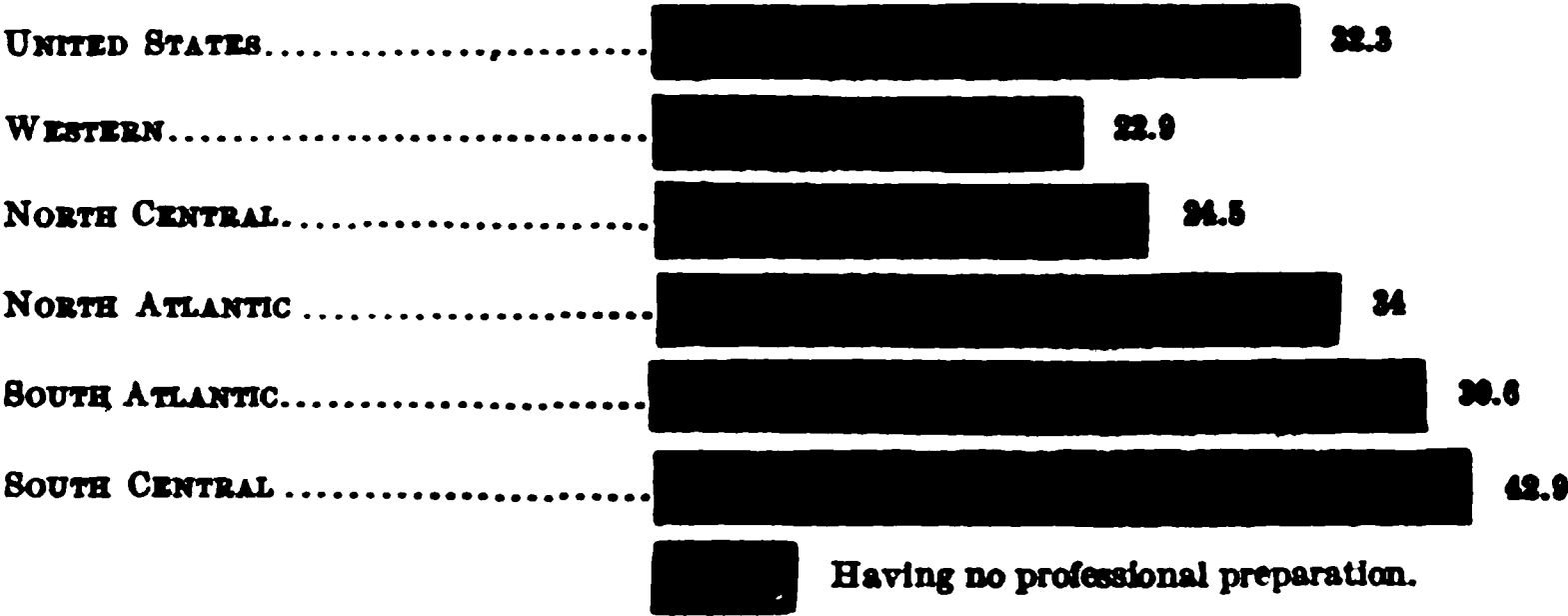


DIAGRAM 12.—Professional preparation of rural teachers, by geographical divisions.

in normal schools. This shows conclusively that the normal schools have in the past supplied surprisingly few professionally prepared rural teachers from their regular courses. Large numbers of

rural teachers have been attending these schools for special summer courses, however, and, as will appear below, many of the normal schools are just beginning to organize special departments for rural teachers.

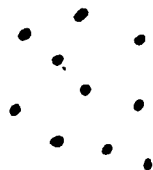

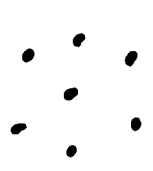
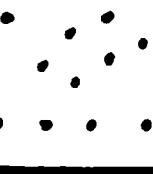


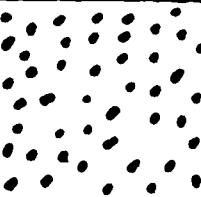
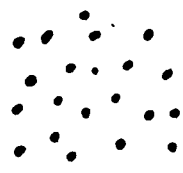
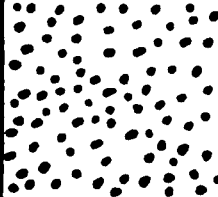

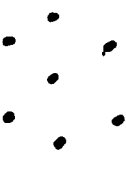





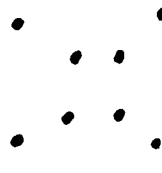
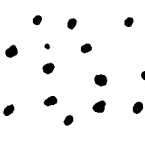





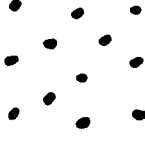

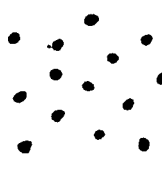







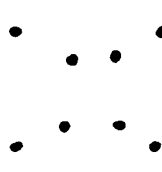


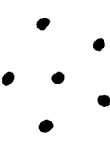




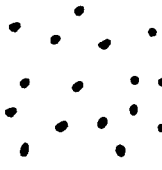
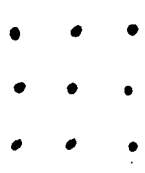
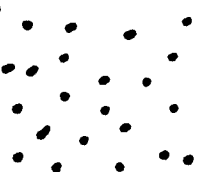




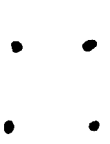


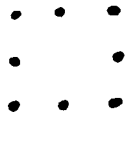
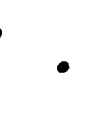
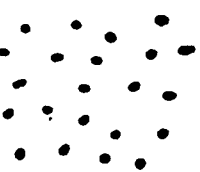

Professional courses in schools of education in colleges and universities have been completed by 73 teachers. Only 8 have pursued full pedagogical courses in agricultural colleges, and 27 have taken partial courses.



DIAGRAM 13.—One-third of all rural teachers have no professional preparation.

A larger number are graduates from high-school teacher-training courses and county training courses—202 report graduation from the former, a majority of these being from New York, Michigan, Minnesota, Nebraska, and Kansas, and 457 have

[Each dot represents 10 or a fraction of 10 teachers.]

	Normal school.		School of education in college or university.		Agricultural school or college.		Secondary school.		Special summer courses of various schools.	Special courses for rural teachers.
	Complete course.	Less.	Complete course.	Less.	Long course.	Short course.	Secondary school.			
							County training school.	Training course in high school.		
UNITED STATES.....										
NORTH ATLANTIC.....										
SOUTH ATLANTIC.										
SOUTH CENTRAL.....										
NORTH CENTRAL.....										
WESTERN.....										

attended the latter, which include the Wisconsin county training schools and a number of minor training schools organized by State authority, such as the Nebraska junior normal schools with special departments organized exclusively for the preparation of rural teachers.

From the foregoing it is evident that the greatest weakness of the rural teachers now in the service is their professional unpreparedness. One-third of all of them have no professional basis on which to build or specific knowledge of the science and art of teaching. Yet every teacher, from the rural school to the college, should be required to know something about psychology and child study, philosophy of education, history of education, methods of teaching, school management and methods, etc., before beginning his work.

II. SOME OF THE THINGS NEEDED TO PROFESSIONALIZE RURAL TEACHING.

INTIMATE RELATION OF SALARIES AND PREPARATION.

Public-school teachers in the United States receive an average annual salary of \$485. Rural-school teachers instruct the children of 53.7 per cent of the entire population, but get as their share only 45.5 per cent of the total amount spent for salaries. Their average annual salary is, accordingly, considerably less than the amount above stated. Artisans, domestics, and common laborers receive better wages than do these teachers.

In a general way, the amount of salary received by the teacher is a measure (1) of his efficiency and (2) of the value in which his services are held by the community. The first point may properly be qualified by the statement that a teacher's income is scarcely to be measured in dollars and cents alone. His pecuniary earnings come in the form of salary, not wages. In addition to the money received, many real satisfactions of an altruistic nature should be taken into consideration. It is undeniable, however, that the Nation has placed a low valuation on the teacher's services, with the result that it has to be satisfied with mediocre teaching.

European schools are generally more thorough than those in the United States and pay better salaries. The reason lies (1) in higher professional requirements and (2) in stronger popular appreciation of the teacher's services and calling. Some educators insist that salaries must be increased first, otherwise the most capable among our young men and women will refuse to spend their time and money on a more thoroughgoing preparation than that in which they are now investing. Others, again, hold that the professional require-

ments must be raised first, or salaries are sure to continue as low as now.

In any event it is a noticeable fact that scores of teachers equipped with satisfactory academic and professional preparation go into country communities and build up the schools and reorganize community interests so satisfactorily that they become practically indispensable to the communities. Such communities in turn repeatedly increase the teachers' salaries, keeping step with the value of the teachers' services. In other words, much depends on the individual teacher's ability; in the long run, he is quite sure to receive what he is worth. What is needed more than anything else in the United States at this time is thoroughly to professionalize rural teaching.

STEPS TOWARD PROFESSIONAL STABILITY.

The change from amateur to professional teaching may be hastened in several ways: (1) Salaries should be increased enough so a teacher with family may live on his income without worrying how to make ends meet. Provision should also be made, by legal enactment, for a liberal sliding-scale salary, allowing the teacher's income to increase in direct ratio to length of service in the same community. This is only fair, since teachers of the right sort will unquestionably grow in value to the community year by year. (2) The entire school plant should be reconstructed to answer present needs and be attractive and sanitary. This would be another inducement for the teacher to spend his best years in the open country. (3) The community should be obliged by legal enactment to erect a teacher's cottage close by the modern school building and preferably upon the same grounds. (4) Teachers' colleges, normal schools, and other schools with teacher-training classes should be encouraged to organize distinct departments in rural life and rural teaching, from which to draw teachers prepared and willing to undertake work in the new farm schools.

THE IDEAL SCHOOL PLANT.

The small one-teacher school has proved itself generally unable to meet the needs of present agricultural demands. It was organized as a pioneer school and as such filled its place admirably. Scientific agriculture demands a school which not only teaches the general fundamentals of an education but its practical phases as well. This work can not be done in the old school plant and by the one teacher, at least not satisfactorily. As a result of the change, a movement has for some time been spreading across the continent which contemplates the consolidation of the many small schools into a few centrally located graded farmers' schools. These schools usually offer an

eight-year elementary school course, and from two to four years of high-school work.

The ideal consolidated school is organized preferably in the open country or on the edge of a rural-minded village. In architecture it is as modern as the best town school. The children's health is considered in the sanitary arrangements. Proper lighting, correct heating and ventilation, flowing water, and indoor toilets are all given careful consideration. There is provision for agricultural and general science laboratories. The assembly hall is arranged with a view to using it for all kinds of community gatherings.

The course of study continues to give the universal elements of education first place, as in the past; but it gives, in addition, a new emphasis to local community needs. Nature study, agriculture, domestic science, manual training, music, and even art are finding prominent place in the day's work, while all the old subjects are taking on more and more of a "farm flavor." The fundamental principles remain the same, but the local application is directed to the needs of the agricultural community.

All the school work is not done indoors, however. The school is set in a large outdoor laboratory. This should never be less than five acres. Many schools have grounds and experimental plats ranging from 20 to 65 acres. Here is room for play and athletic grounds, for parking, individual gardens, experimental plats, and larger fields and orchards. It stands to proof that the most practical schools of this kind, so far as local application is concerned, give the most thoroughgoing instruction in the general cultural elements, language, literature, history, etc. It is quite feasible to combine the education of the great out of doors with indoor study so as to bring about a satisfactory coordination of head, heart, and hand.

THE ROLLO CONSOLIDATED SCHOOL, AN ILLUSTRATION TO THE POINT.

One of several thousand such schools is in Paw Paw Township, De Kalb County, Ill.

The school is placed in a working laboratory of 26 acres. This is laid off as ornamental parking, with shrubbery and trees, playgrounds, and athletic field, individual gardens, experimental plats, and school fields. The main building is an attractive two-story and basement brick and terra-cotta structure, which was built and equipped at a cost of \$30,000. It has every convenience that can be found in a city school. A pressure-tank system provides flowing water in abundance, thereby making it practicable to have indoor toilets, baths, drinking fountains, etc. The school is steam heated, and lighted with gas generated on the premises.

The school is in charge of six professionally-prepared teachers. It offers a well-organized course of work for the eight grades, and a

strong four-year high-school course. The laboratory equipment for physics, chemistry, and agriculture is very complete. Worthy, also, is the school library of 1,500 bound volumes and many pamphlets.

This community has recognized the value of the teacher as a factor in permanent community life by erecting, on the campus, a beautiful modern home, at a cost of \$6,000. The home is directed by a housekeeper, who has full charge of boarding and lodging the teachers, none of whom happens to be married. All modern conveniences are provided. The teachers of the school were unanimous in their statement that they much prefer life in the Rollo community to teaching—as several had formerly done—in the town schools.

The Rollo School enrolls a large number of sturdy farm youth, such as are seldom found in the one-teacher schools nearby. This alone speaks volumes for consolidation. These children are well organized in their play life, having their baseball, basket ball, and tennis teams. A thriving athletic association has charge of all these activities.

The entire student body is organized as an active Literary Society. Sixty of the students have organized an Audubon Society, for the study and protection of birds. The home is brought into closest touch with the school by means of granting credits for home work. At the close of each week the parents hand in industrial cards, which state the amount and nature of children's home work. School credits are granted for all worthy work of this kind. Three things are stressed by the school: (1) home work, (2) regularity of school attendance, and (3) high grade of class work.

The school does not limit its activities to the school premises. Neighborhood orchards are pruned and sprayed by the advanced pupils. Milk cows are tested for tuberculosis. So successful has the senior agriculture class been in its work of assisting the stock feeders of Paw Paw Township, that many of these have the agriculture teacher and his class "top off" the fattening steers during the last week or so before marketing. This and much similar work has become part of the regular routine, and has made the school indispensable in the new agricultural evolution.

To have part in the activities of such a school is an inspiration in itself. Instead of the customary round of 25 or 35 classes daily, there is a carefully arranged program of few classes. The very force of numbers adds to the social attractiveness of the school. An abundance of social-center interests will keep the teachers contented and happy in their work. Such schools are beginning to help professionalize rural teachers by offering abundant inducements for thorough preparation and continued improvement.

TEACHERS' HOMES AND MEN TEACHERS.

Probably the greatest service of the consolidated school to the teaching profession is that it extends opportunities to men teachers to reenter the schools.

Every rural school in Denmark, to cite a European illustration, provides the teacher with a comfortable home, a well-planned garden, and sometimes with larger tracts of land. The natural result is that the schools are taught by professional teachers of long tenure in the same community, four out of five being men, most of them married and rearing families. The well-equipped consolidated schools are beginning to accomplish exactly this same thing for the United States.

Teachers' cottages should be erected in connection with all consolidated schools—and, for that matter, in connection with all rural schools. The principal, at least, should be paid by the year, and should be held responsible for the school plant 12 months out of the year. This will make for permanency and stability in school affairs. Moreover, the cottage should be supplied with land for a good garden to provide house needs with fruit and vegetables. The fields and plats should be under the principal's care all the time, including the summer months, and whatever net profits might accrue should be considered part of the teacher's income over and above the stipulated annual salary.

III. WHAT THE SCHOOLS ARE DOING FOR RURAL-TEACHER PREPARATION.

GENERAL STATEMENT.

A study of the distribution of rural-teacher training by schools is set forth above, in Table 2. According to this table, 178 teachers report complete or partial courses in normal schools, 175 report similar work in schools of education in colleges and universities, 35 have taken long or short courses in agricultural colleges, 659 have completed professional courses in secondary schools, and 868 have attended special summer-school courses for rural teachers in a variety of schools.

The largest immediate supply of rural teachers comes from the training departments of the high schools in many States; next in point of numbers stand the normal schools; then schools of education in colleges and universities; finally come the agricultural colleges, with a comparatively small number of students in long and short courses.

The following pages are devoted chiefly to a discussion of special departments and distinctive courses for rural teachers organized in

A. ROLLO CONSOLIDATED SCHOOL.

A school set in a "laboratory" of 26 acres of rich Illinois land.

B. TEACHERS' COTTAGE, ROLLO CONSOLIDATED SCHOOL.

Erected by the community at a cost of \$6,000.

A. ONE-TEACHER SCHOOL IN FORT LAPWAI DISTRICT, IDAHO.

Used as teacher training school by the Lewiston normal school.

B. TRAINING TEACHERS' LIVING QUARTERS, FORT LAPWAI, IDAHO.

B. MODEL RURAL SCHOOL, STATE NORMAL SCHOOL, MAYVILLE, N. DAK.
Inside view, showing domestic science, manual training, and biology sections.

the normal schools and agricultural colleges, and to the rapidly changing policy of these schools toward rural-teacher training. Schools of education in colleges and universities are left out of consideration, since they do not, as a rule, offer specialized courses for rural teachers. High-school training classes and county training schools likewise are passed over, as they have already been treated fully in a recent publication of the Bureau of Education, and a discussion of them here would be superfluous.¹

STATE NORMAL SCHOOLS.

Out of 121 normal schools reporting, 36 have distinct departments for rural teachers; 19 others offer special courses, although not equipped with distinct departments; 28 offer instruction in some subjects for rural teachers separate from the general courses; while 41 schools make no special provision for rural teachers whatever. It is a very suggestive fact that 57 normal schools are equipped to give instruction in agriculture. Some of the schools have large school farms, or make use of portions of the school grounds for agricultural experiment purposes through gardening or experiment plats. The rural-school departments in many of the normal schools are reaching the rural population by means of an active extension service, through club work, rural-life conferences, rural surveys, and in other ways. A few of the schools report model rural schools erected upon their grounds, while others utilize one or more of the near-by rural schools for practice teaching.

¹ Training Courses for Rural Teachers, Bulletin 1913, No. 2.

TABLE 3.—Work of normal schools in preparing rural teachers.

Divisions and States.	Normal schools reporting.	Having distinct departments for rural teachers.	Offering special courses for rural teachers.	Offering some work separate from the general courses.	Making no provision for rural teachers.	Offering courses for teachers of agriculture.	Special rural subjects. ¹				Other subjects emphasized. ¹								Equipped with model rural school. ¹	Rural practice schools. ¹	Remarks.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
							Rural school management.	Rural school methods.	Rural sociology.	Rural economics.	Domestic science.	Manual training.	General agriculture.	Gardening.	Nature study.	Club work.	Playground supervision.	Social center work.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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ATTITUDE OF THE NORMAL SCHOOLS GOVERNED BY PUBLIC SENTIMENT.

The normal schools should, theoretically at least, be able to prepare teachers for all kinds of schools. Practically, however, they have not always been able to do so. The demand for trained teachers in the city and village schools has in most sections of the country been so great as to absorb all the energies of the schools, leaving little or no time to consider the needs of rural communities. Certain geographical sections of the country, notably the North Atlantic division, have now little genuine agricultural life. Here, naturally enough, the normal schools do not devote much of their time to rural teachers. In such agricultural sections as the North Central and South Central divisions, on the other hand, rural teachers are in the majority. Now that educational ideals are undergoing great changes in these sections of the country, it is reasonable to expect that the normal schools will be prompt to respond to the new needs. These schools have always been ready to adapt themselves to prevailing conditions. In a sense they are so near to public thought all the time as to be "more nearly to-day an actual exponent of public sentiment than any other public institution of equivalent magnitude." The best evidence of this is that the normal schools situated in the agricultural sections of the country are at this time straining every energy to be of greatest assistance in rural teacher preparation.

ORGANIZATION OF DISTINCT DEPARTMENTS FOR THE PREPARATION OF RURAL TEACHERS.

Correspondence with normal-school presidents and other leaders in the schools has developed the fact that these men have begun to see clearly the need of a specialized preparation for rural teaching. The first step in answer to the new demands is usually to offer a special course for students desiring it. The class work of the rural courses is often in charge of the regular instructors of the professional department in the school who have had little particular preparation for rural-life phases of educational work; consequently, the special courses are not always satisfactory in results and not much sought after by the students of the school.

More satisfactory results are apparent where the normal schools have organized distinct departments in this field. The plan usually followed is to place a carefully prepared rural school-expert at the head of the department. Other assistants are added from time to time as the development of the department may require. The plan of the organization is to group the school subjects around a study of the problems of rural life, including rural sociology and rural economics. Much emphasis is placed on rural-school methods of teaching and rural-school management. Preferably, there is a model rural school connected with the department and under its direction. The plan is, further, for the department to extend its services to the country communities which receive the teacher product of the school.

The rural-school department in the State normal school at Kirksville, Mo., as an illustration of this development.—In this school a professor of rural education, who has made a careful study of rural-life conditions, devotes all his time to the work of the department. He has personal charge of the more important classes and supervises the activities of the model school and the field work. The latter is in immediate charge of a school-extension expert who carries the activities of the department into the country communities through lecture courses and informal meetings with the patrons. Possibly his most important work is to aid beginning teachers to become adjusted to their new environment and to select the right teacher for the right place. The model rural school, which is only “a stone’s throw” from the rural department classrooms, is constantly in use as a practice school by the student teachers and also as a place where model lessons of all kinds are studied. Finally, it is used as a model to study the best and latest in rural-school architecture.

The rural-school department of the Kirksville normal school has offered a 3-year course of study since 1911. A very large proportion of the students of the school take this work, since fully 50 per cent of them are to teach in rural communities. At the present time an additional advanced 4-year course is planned for strong teachers who desire to prepare themselves for leading positions in the consolidated schools and rural high schools, as also for teachers who wish to take charge of rural teacher-training departments in high schools. The 3-year course covers 9 terms of 3 months each, making in all 27 months. The studies are as follows:

	Terms.	Units.
Grammar and composition.....	3	1
Literature, with composition.....	3	1
Farm accounts and advanced practical arithmetic.....	3	1
Algebra through quadratics.....	3	1
American history.....	3	1
Civics, 2 terms; sanitation, 1 term.....	3	1
Agriculture.....	3	1
General and commercial geography.....	2	$\frac{1}{2}$
Manual arts, fine arts, writing, reading, vocal music, physical education, at least one term each (1 hour a day).....	6	1
Rural-school management, rural-school methods, rural sociology, one term each.....	3	1
Electives.....		$2\frac{1}{2}$
		<hr/> 12

NOTE.—High-school graduates who seek the rural State certificate must take not only the three terms in rural school pedagogy, but they must take some review courses in grammar, composition, arithmetic, and American history at least. They must also offer the one unit (1 hour daily) in fine arts, manual arts and other drills.

Courses offered by rural-school departments in other normal schools.—There is little apparent difference in the organization of the courses of study offered by the normal schools equipped with rural-school departments and the schools offering only special rural-school courses as a part of the regular professional work. The real difference lies,

rather, in the greater final effectiveness of the work of the schools with fully equipped departments. The chief business of these is to prepare teachers who are willing to go into rural leadership work and to aid and encourage these teachers in solving their difficult problems.

It is unnecessary to give a detailed description of many of the 36 rural-school departments now in operation; 2 other cases will suffice.

(1) *The Central State Normal School, Mount Pleasant, Mich.*, began offering courses for the training of rural teachers as far back as 1895, and has recently been designated by the Michigan Board of Education as the special training school for teachers of agriculture. To this end, a fine \$100,000 building was recently erected and a farm purchased for experimental purposes. Three distinct courses for the training of rural teachers are offered. Course I is equivalent to the first two years of a standard 4-year high school; Course II is equivalent to the third and fourth years of a standard high school; while Course III is intended for high-school graduates, or those who finish Course II. The work of the advanced course is as follows:

(a) <i>Professional work:</i>	Weeks.
Psychology.....	24
Pedagogy.....	12
Teaching.....	24
Teachers' courses.....	60
(b) <i>Required academic work:</i>	
Blackboard sketching.....	12
General agriculture.....	12
Music, manual arts, or domestic science.....	12
Rural sociology.....	12
Physical education.....	36
Public speaking.....	12

This course is the same as the graded course offered by the normal school, and the certificate is good in any city, village, or country district in Michigan.

(2) *The State Normal School at Bellingham, Wash.*, offers three regular courses for rural teachers, each two years in length. The prerequisites for these courses are, respectively, 2, 3, and 4 years of high-school work, and graduates are entitled to two-year, three-year, and five-year certificates. The advanced course is as follows:

JUNIOR YEAR.			
<i>First semester.</i>		<i>Second semester.</i>	
	Credits.		Credits.
Psychology.....	3½	Expression.....	2
Observation.....	2½	Rural-school methods.....	5
English.....	2½	Agriculture.....	4
Arithmetic.....	2½	Rural-school sociology.....	1
Music.....	2	Manual training.....	2
Teaching.....	2½	Teaching.....	2½
Drawing.....	2	Gymnasium.....	1
Geography.....	2	Home economics.....	2
	20½		19½

SENIOR YEAR.			
First semester.		Second semester.	
	Credits.		Credits.
English.....	3	Sociology or political economy.....	4
History of education.....	4	Philosophy of education.....	4
History and method.....	2	Humane education.....	1
Teaching and education.....	5	Sex and moral hygiene.....	1
Electives.....	4	Teaching and education.....	5
Physical training method.....	1	Electives.....	5
	20		20

Outline of special work offered.—The following courses are open to all students who are eligible to enter the school in any of the usual courses. In no case are students recommended for rural-school work who are under 19 years of age.

Rural-school methods: This course is offered in both semesters. The course deals with the organization of the rural-school curriculum, based upon the State course of study. Special emphasis is placed upon the ‘‘What’’ and ‘‘How’’ of the redirected work for rural schools. Such subjects as English, arithmetic, geography, nature study, and agriculture are taken up. The theory of presenting the subject matter is followed with observation of classroom practice.

Rural-school management: Much emphasis is laid upon proposed school improvement in this course. This involves a study of school administration and organization, rural-school supervision, daily programs, records, preparation of the teacher, the new school plant, hygienic conditions, hot lunch, playgrounds, school and home gardens, consolidation, as well as the redirected course of study.

Rural sociology: This course is arranged for advanced students. The work divides itself into three divisions: Conditions and needs of country life, rural industrial problems, and rural social problems. It is aimed to give the facts and conditions of country life a broad sociological interpretation. Particular emphasis is placed upon the social and educational betterment of rural communities, and the teacher’s relation to the community. Investigations and reports are made by the class.

Rural-school observation: The work in this division includes observation of classes in all grades of the training school; also special observation in rural schools. It consists of the observation of illustrated lessons taught by the various teachers of the training school and the regular teacher in the rural school, followed by a criticism and discussion of the methods involved; also observation of the children at work in the training school and in the rural schools. Some of the topics considered are the physical and mental development of the children, habit formation, individual differences of children, the planning of the lesson, illustrative material, seat work, and play supervision.

All of this work is discussed with special reference to the conditions and problems of the rural school.

Rural-school lunches: This course is designed especially for students who are planning to teach in rural schools. The work is based upon the four food principles, their composition and nutritive value. Special attention is given to suitable combinations and the preparation of each, as best suited to the needs of school children. Demonstration lunches will be given to the pupils of the training school.

ACTIVITIES PECULIAR TO THESE RURAL-SCHOOL DEPARTMENTS.

By reason of a definite organization, the rural-school departments in the normal schools have been able to do exceptionally thorough work in the subjects which concern directly the problems of country

life. Many of these departments have successfully projected the school into farm life by means of extension courses, club work, and social-center activities. An enumeration of some of these activities is made below to illustrate this point:

State Normal School, Stevens Point, Wis.—The school holds each year a farmers', homemakers', and rural-school teachers' conference. There have been three such meetings. The first was small, the second larger, and at the third there were 400 people present. During the time of these meetings the neighboring schools are closed, and the teachers bring the children to the normal school. There are children's programs, consisting of games, folk dancing, visiting of classes in the normal schools, etc., and general sessions for men and women from the farm. The teachers also have special programs. The county superintendent cooperates with the normal school prior to the annual meeting by holding a number of local rallies to arouse interest in the central meeting.

State Normal School, Peru, Nebr.—The special subjects offered in the rural-school department are methods classes in agriculture, home economics, manual training, rural economics, and rural sociology. In the manual-training course the student teachers are taught how to use the hammer, plane, saw, square, and vise. The students make their own workbenches and a large number of utensils and other things, which they are expected to use or teach in the rural schools. No more valuable work is done in this department than to provide special instruction in playground supervision for rural schools. The student teachers are taught the activities that can best be utilized to improve and develop rural children physically and socially. The teachers who go from this department introduce new recreational activities in the communities where they teach. To this end they receive instruction in plays, games, and folk dancing.

Winthrop Normal College, Rock Hill, S. C.—The school has on its campus 499 school gardens and many experimental plats. On the school farm of 144 acres, three-fourths mile distant, there are, among other equipment, a modern dairy of 80 cows, a large poultry plant, numerous experimental plats, and barn lots and pens containing 200 calves and the same number of hogs. Aside from the regular course for rural teachers, this school has what it calls "the rural-life degree course." Teachers who go out from Winthrop Normal College are remarkably well equipped for the tasks of socializing rural community life.

State Normal School, Lewiston, Idaho.—The rural department emphasizes, first, the general subjects of school administration and sociology, practice of teaching, school management, and classroom methods; second, special applications of these subjects, such as rural-school management, rural sociology, and practice teaching in the

rural practice schools; third, vocational subjects, including agriculture, manual arts, cooking, sewing, etc.; fourth, physical education, including sanitation, health, and playground theory and practice.

State Normal School, Natchitoches, La.—The rural-school department of this institution emphasizes the following points: First, a broad course covering the various phases of rural problems—industrial, social, and educational; second, a clear grasp of the social status and the changes necessary to alleviate present rural-life conditions; third, a confidence and determination in one's purpose to better rural conditions. The rural-training course includes general agriculture, animal husbandry and dairying, farm arithmetic, shopwork, rural economics, and rural-school organization. The institution makes liberal use of school gardens, experimental plats, and club work—including under the latter head tomato clubs and clubs organized to improve local breeds of pigs and poultry.

Many other normal schools with organized rural-school departments or with special courses for rural teachers are doing notable work in reaching country people. The Western State Normal School, at Kalamazoo, Mich., has its "Annual Rural Progress Day," on which occasion many hundred rural life workers are the guests of the school, listen to addresses by specialists, and take part in round-table discussions; the Western Illinois Normal University, at Normal, Ill., holds each year a remarkably well-attended "Illinois Rural Life Conference"; the Missouri State Normal School, at Kirksville, holds an "Annual Missouri Rural Life Conference and Stock Show" on its campus; the State Normal School at Chico, Cal., carries on interesting and important extension work in organizing parent-teacher associations and social-center clubs, and providing rural schools with shrubs and trees from its own nursery; and the State Teachers' College at Cedar Falls, Iowa, is carrying to rural districts a remarkably well organized course of extension lectures.

THE NORMAL SCHOOLS AND PREPARATION OF TEACHERS IN AGRICULTURE.

Many States have recently made the study of agriculture in the public schools compulsory, and most of them require teachers of rural and village schools to pass an examination in this subject before granting certificates to teach. Much of the early agriculture teaching has, for good reasons, been poor and limited to textbook work. This was because the teacher had had little opportunity to make proper preparation, and the schools offering such courses to teachers were limited in their equipment. One of the most remarkable adaptations to new needs in the normal schools is seen in the organization of strong departments in agriculture and household economics; 58 of the normal schools reporting have distinct courses for teachers in agriculture. In most of the schools the departments are in charge

of one or more experts with liberal agricultural college training. The departments have, as a rule, sufficiently large outdoor laboratories at their disposal—school farms, experimental plats, and greenhouses. A few of the schools are not equipped with farms, but all are able to supply some outdoor work. These courses vary from one to four years in length. Three typical courses of this kind are given herewith:

State Normal University, Normal, Ill.—The school offers a two-year course open to high-school graduates. Others must have preparatory courses in science and other subjects sufficient to cover the deficiencies in preparation. The course includes the following: (1) Agriculture, embracing farm animals, animal production, the garden and orchard, farm crops, soil fertility, crop production, soil physics, farm organization, farm accounts, drainage and cement construction, farm machinery, and plant improvement; (2) two years of physics and chemistry, and one and one-third years of advanced study in botany and entomology; (3) one year of practice teaching, together with one and one-third years' study in psychology and principles and methods of teaching; (4) one and one-third years in commercial geography; (5) two-thirds of a year in rural sociology and economics.

State Normal and Training School, Cortland, N. Y.—The school has a large, well-equipped school farm. It offers two distinct courses for teachers in agriculture. The first is a one-year course, the second, two years. The subjects included are as follows:

AGRICULTURAL COURSES.

ONE-YEAR COURSE.

<i>First term.</i>		<i>Second term.</i>	
	Periods.		Periods.
Physics (agricultural).....	5	Farm mechanics.....	5
Horticulture	5	Dairying.....	5
Botany.....	5	Entomology.....	5
Animal husbandry.....	5	Bacteriology and plant pathology ...	5
Farm crops.....	5	Farm management and farm practice.	5
Chemistry.....	5	Advanced science methods.....	5

Graduates from either of these courses, upon recommendation of the principal, will receive a diploma, which is a life license to teach agriculture and allied sciences in the public schools of the State. (Figures refer to the number of periods per week.)

TWO-YEAR COURSE.

First year.

<i>First term.</i>		<i>Second term.</i>	
	Periods.		Periods.
Physics (agricultural).....	5	Farm mechanics.....	5
Botany.....	5	Psychology.....	5
History of education.....	5	Entomology.....	5
Chemistry.....	5	Bacteriology and plant pathology....	5
Manual training.....	5	Chemistry.....	5

Second year.

	Periods.		Periods.
Horticulture.....	5	Logic.....	5
School economy.....	2	Dairying.....	5
Animal husbandry.....	5	Advanced science methods.....	5
Farm crops.....	5	Farm management and farm practice.	5
Observation.....	10	Teaching.....	10

Southeastern State Normal School, Durant, Okla.—The school offers a unique two-year “Homecraft course” for rural teachers and teachers of agriculture. The special subjects of this course are:

Chemistry of the farm—

Chemistry and physics of soils; what foods plants use in growth; the plant as a machine; conversion of vegetable products into more highly organized bodies through the use of lower animals.

Chemistry of the kitchen—

Selection and preparation of food; kitchen and table waste.

Sanitary science of house and farm—

Atmosphere; ventilation; fuel; lighting; sewage disposal; house cleaning; laundry; bacteria; disinfectants; common insect pests of domestic animals and the household.

Horticulture—

Necessity for the study; the plant as a whole; how plants feed, grow, and propagate; the school garden; fruit gardening.

Floriculture.

Forestry; use to man.

Birds; relation to homecraft.

MODEL RURAL SCHOOLS AND RURAL PRACTICE SCHOOLS.

Of the normal schools reporting, 14 have established model rural schools on or near the normal-school premises, and about an equal number of schools utilize regular rural schools of the vicinity as practice schools for the student teachers in the training classes.

Educators are somewhat divided in their opinion as to which of the two schools is the more effective in practice. Both have their advantages and disadvantages. The model school conducted on the campus of the normal school, say some, can generally be counted on to exert a greater influence with the student teachers, because it is a part of their daily working laboratory. The students become intimate with its architectural advantages through daily contact, and will later strive to duplicate these in their own schools. In a similar way the teachers save time and energy by being able to attend frequent model-lesson periods at the school and to do their practice teaching without going into the country. On the other hand, the advocates of the rural practice school insist that rural teaching can best be done in the open country, where the right environment for such teaching can only be found. There is much force in this, and to overcome it the advocates of the model schools located in town convey the pupils of the schools from the country and provide them with an environment as much as possible like that of the open country.

Three normal schools which in former years utilized near-by rural schools have recently erected their own schools on the normal-school campus as a part of the regular equipment. Several of the normal schools which adhere to the practice school of the open country, but which have come to the conclusion that the energy and time expended in coming and going to and from the schools is out of proportion to the good gained, have reorganized their plans in such a manner that they now send groups of students, comprising four or six to the group, under a competent critic teacher, to the rural practice schools, where they spend several weeks at a time doing practice work and assisting in community center work.

State Normal School, Lewiston, Idaho.—The school authorities believe that, in order to contribute most efficiently to the solution of the rural-school problem, the practice work must be done under conditions that are typically rural. Students are accordingly assigned to observe school practice in rural schools located within easy traveling distance of Lewiston.

Says Mr. Earl S. Wooster, dean of the rural department, in writing of this work:

At the beginning of the work we tried sending teachers out once a week for observation, but abandoned the scheme. In the practice quarter of the school year, teachers are now assigned in groups numbering from four to six to a rural training school. Last year we used three: One located at Sweetwater, 14 miles from Lewiston, in a small country town on the branch line of the Northern Pacific Railroad leading to Grangeville, Idaho. The second is located at Arrow Junction, on the Spokane-Lewiston line, approximately 15 miles from Lewiston. Arrow is simply a junction point on the railroad, with one very small store and no station agent. The third is a district school located near the head of the valley, about 15 miles from Lewiston, and known as the Upper Tammany School. The school at Fort Lapwai was used during 1911-12, but the advent of a consolidated rural high school, together with normal growth of the town, so increased the school enrollment that four teachers became necessary, thus causing the school to cease to be useful for our teachers.

Three different living plans were utilized. Train service made possible commutation from Lewiston to Arrow. This has proven unsatisfactory, and next year the teachers will live at Arrow, as they are now doing at Tammany. The girls (student teachers) and a critic teacher live in the tent houses on a cooperative basis, maintaining their own table. The school furnishes all equipment save bedding, and the girls pay the actual cost of food and fuel. In this way they become a part of the community for the nine weeks during which they remain here for practice.

At Sweetwater it has been possible to obtain board and rooms for the student teachers in homes near by. With this exception, the plan is the same as that in force at Upper Tammany.

The State Normal School, at Stevens' Point, Wis., uses a similar system. Here two students at a time spend a week at the rural observation school, which lies 10 miles from town. During this time they are entirely under the care of the local teacher, who was chosen by the normal-school authorities, and one-half of whose salary is paid by the normal school. The students do no teaching, but are

furnished an outline of the school work, and from time to time confer with the teacher in regard to the work they are doing. Later they spend five days, one at a time, in the district. While attending the rural observation school they miss their classes in the normal school, but they are generally able to make up the other school work without much trouble.

The model rural school, Mayville, N. Dak.—Model rural schools situated on the normal-school grounds have proved of incalculable value as illustrations of what is practicable and feasible in the average rural community with a one-teacher school. The model school at Kirksville, Mo., for example, has been copied as a whole or in part throughout Missouri and even in other States. As much may be said of like schools elsewhere.

One of the latest and most practical of these schools may be seen on the grounds of the State Normal School at Mayville, N. Dak. In architecture the building departs very far from the traditional type, resembling, as it does, an ordinary cottage. While it may be used advantageously as a one-teacher school, it is not a one-room school. It is well to emphasize here that the new type of small school, if it shall hope for leadership in the rural community, must be a real laboratory, equipped to root the course of study to the soil, and adapted to social-center uses. The Mayville model school is well equipped to meet all these demands. To quote the words of the president of the normal school:

In its model rural school, which is in operation during both regular school year and summer school, the normal school tries to illustrate the best obtainable things not only in a building but also in grounds, equipment, teacher, course of study, daily program, methods of instruction, management of children, and social activities; that is, to make the model rural school a rich source of suggestion and inspiration to teachers and school officials and, especially, to students whom the normal school is preparing for work in the rural and village schools.

The following items of cost and arrangement are of interest:

Cost, without any equipment, but with full basement, \$4,000.

Ground dimensions, exclusive of porch and rear entrance, 38 by 34 feet; seating space for 24 pupils.

Basement used for furnace, fuel, cistern, storage, and school activities.

Main floor—Large cased openings permit free entrance of light and an almost unbroken view of the entire floor from any point of view.

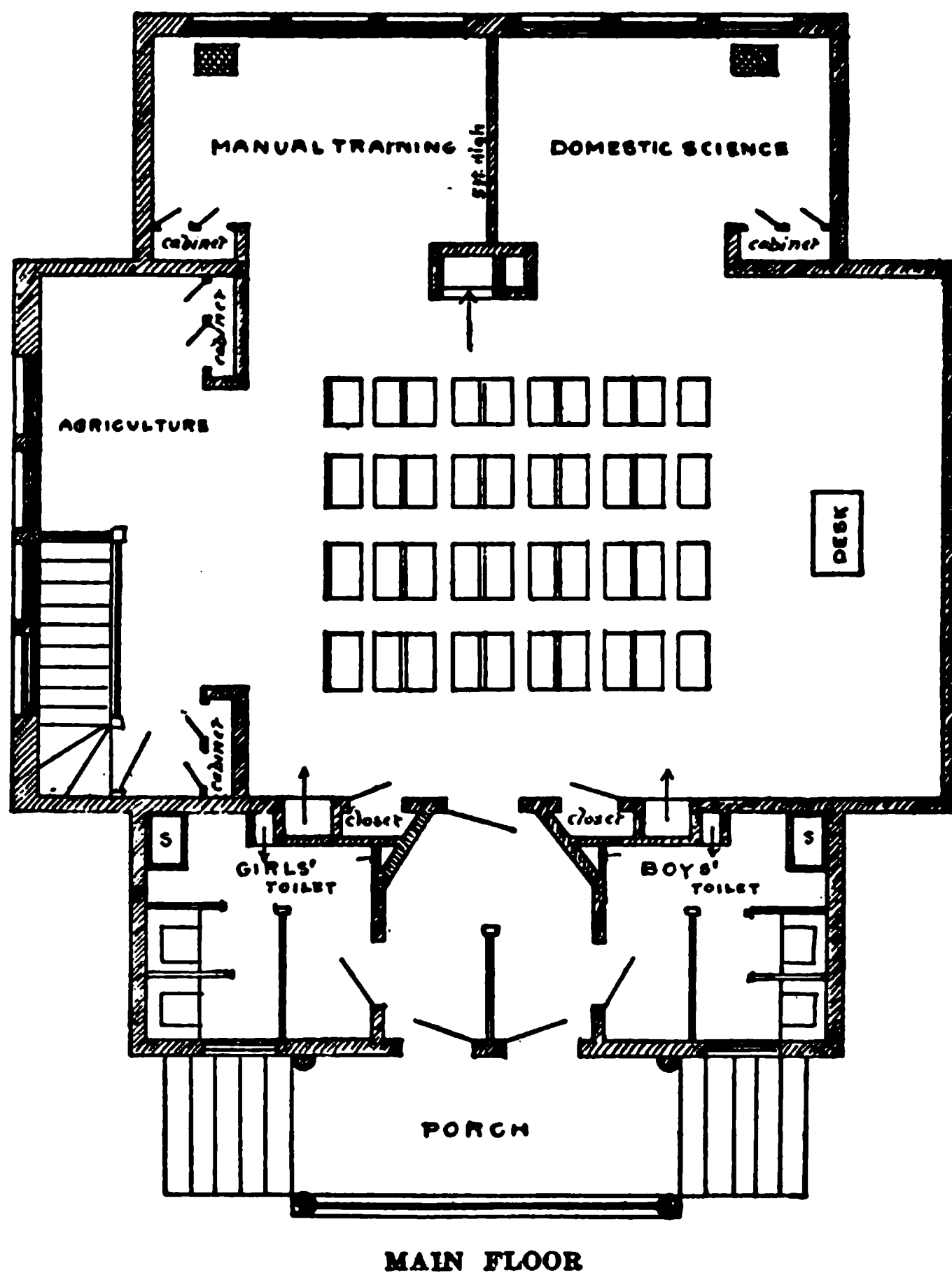
Attic used for storage and contains ventilation pipes from toilet rooms to vent at side of smokestack; entrance through ceiling opening in hallway between toilet rooms.

Toilet rooms on main floor just inside double entrance.

Heating and ventilation—Hot-air furnace in basement; fresh-air inlet under porch and basement floor; warm-air outlets in walls near ceiling; return-air registers in floor; foul-air outlet near floor in vent at side of smokestack; furnace draft controlled by thermostat; closets in toilet rooms connected with smokestack vent by pipes through attic.

Plumbing reduced to minimum because of danger of freezing when, during cold weather, school is not in session; consists only of pumps and sinks in toilet rooms and laboratories, the necessary connecting pipes, and outlet to absorbent basin.

Sewage and garbage—Sanitary dry closets in toilet rooms; waste water from sinks goes into concealed disinfected absorbent basin outside building; solids that burn go into furnace; others are accumulated and buried in fields near by.



MAYVILLE SCHOOL.

Cistern in basement filters water from roof for drinking and laboratory and toilet purposes.

Windows all on main floor, except those in toilet rooms, have double sets of double-hung sash which aid ventilation and make detachable storm windows unnecessary; all windows have detachable fly screens, permanent large-meshed screens to protect them from balls, and adjustable shades.

Evening light and fuel—Gas system, involving use of storage tanks for evening light and laboratory purposes; wood and coal (hard or soft) are used in domestic science range; furnace gives best results with hard coal of "stove-coal" size.

STATE AGRICULTURAL COLLEGES.

Out of 49 agricultural colleges reporting, 27 have distinct departments for the preparation of agricultural teachers for secondary and elementary schools, 19 others offer summer and other special courses for agricultural teachers, while 11 give some work of this kind. It is very suggestive to find that 10 colleges maintain distinct departments for rural teachers, while 12 others offer some work for such teachers. Special emphasis is laid on the professional teaching subjects by the following numbers: Psychology, 10; general pedagogy, 17; rural-school management, 16; rural-school methods, 13; and teaching of agriculture, 35. Other subjects specially mentioned are: Rural sociology, 26; rural economics, 33; domestic science, 16; manual training, 9; nature study, 8; rural leadership, 2; other rural organization, 4. Again, 16 colleges offer practical work for teachers on the college farm, 9 lay great stress on experiment plats for teachers, 3 on school gardens, and 2 have model rural schools. The figures here given are, unfortunately, not final, since many of the schools neglected to report in detail. They are sufficiently complete, however, to give a good idea of the recent progress in teacher training in these schools, which a few years ago considered all professional work as entirely outside their province.

B. MODEL RURAL SCHOOL, STATE NORMAL SCHOOL, KEENE, N. H.

At work in the manual training corner.

A. TEACHERS' COTTAGE, YUMA COUNTY, ARIZ.

B. TEACHERS MAKING GARDENS.

Purdue University summer school for teachers.

B. TRANSPORTATION WAGONS AT CACHE LA POUDRE SCHOOL.

A. TEACHER'S COTTAGE, CACHE LA Poudre SCHOOL.

This is one of the old one-teacher schools remodeled at a cost of \$700.

B. PLAYGROUNDS AT CACHE LA Poudre SCHOOL.

It is now the purpose to consider, at some length, the work of the agricultural colleges in preparing (1) agricultural teachers and (2) general rural-school teachers.

ESTABLISHMENT OF PROFESSIONAL CHAIRS IN AGRICULTURAL COLLEGES.

By degrees, consciously or otherwise, the trend toward industrialism has forced the introduction of industrial subjects into every variety of institution of public education. Agriculture, home economics, and manual training are getting a firm grip on all the schools, and not the least on the rural schools. The chief difficulty up to the present time has been a lack of trained teachers for these subjects, and schools in which to procure the necessary preparation. This defect is now, fortunately, met in many of the agricultural colleges through the creation of divisions of agricultural education. The new chairs aim primarily to prepare teachers of agriculture and other industrial subjects for secondary and higher schools, such as high schools, normal schools, and other agricultural colleges, as also for the new consolidated rural schools. The product of long-course teachers has not yet been sufficiently large to reach many of the smaller rural schools. It is to meet in some measure the demands for the latter that summer-school courses of a large variety are offered. These are proving of great value to rural and village teachers. Only a few of the agricultural colleges have yet seen their way clear to organize special departments or courses for general rural teachers.

PREPARING INDUSTRIAL TEACHERS FOR SECONDARY AND OTHER SCHOOLS.

The agricultural colleges and agricultural departments of the universities have for some time been the best prepared among schools to teach the subject matter of the new industrial subjects. Now the new professional divisions are supplying what has been lacking for the proper presentation of the industrial subject matter in the classrooms.

The work of one of the 27 schools reporting distinct departments for the preparation of agricultural and other industrial teachers is offered to illustrate the work of all.

College of Agriculture, the University of California.—The division of agriculture teaching offers a number of thoroughgoing courses for high-school teachers and also two for graduate students. These are as follows:

For the recommendation of the department for the high-school teacher's certificate the following requirements must be met:

1. The applicant, if a graduate of the University of California, in 1914 or thereafter, shall have taken his major in agricultural education.

2. The applicant shall have had the following work, or its equivalent:

- (a) Agricultural education 101, 102, 104.

- (b) At least one course in soils, economic botany, plant propagation, pomology, agronomy, landscape gardening, plant pathology, economic entomology, farm management, live stock, dairying, poultry, veterinary science, farm machinery, irrigation.

LOWER DIVISION COURSE.

5. Agencies for Rural Progress.—A study of country-life problems, agencies for rural progress, and the best means of utilizing those agencies for the improvement of rural communities. Lectures, assigned readings, and reports. 3 hours, 3 units. Each half year.

INTERDIVISION COURSE.

99. Practice in General Agriculture.—A six weeks' course, beginning May 14, covering the practical operations on a farm, including methods of tillage, irrigation, and crop culture; care and management of horses, cattle, sheep, hogs, and poultry; practice in dairy work; care of orchards and vineyards. The course is intended to familiarize the students with the practical operations on the farm. 6 units. Prerequisite: Two full years of college work.

UPPER DIVISION COURSES.

100-A. Agricultural Nature Study in Elementary Schools.—Lectures and laboratory. The course is especially designed to meet the needs of prospective teachers and supervisors of nature study and school gardens. 5 hours first half year. 3 units.

100-B. Agriculture in Elementary Schools.—Lectures, laboratory and garden work. The course is especially designed to meet the needs of prospective teachers of elementary agriculture. 5 hours second half year. 3 units.

101. High-School Farms, Gardens, and Community Work.—Lectures, reports, and conferences on the utilization of land in connection with high-school agricultural teaching and a study of the means by which the agricultural education facilities of a school can be brought into intimate and helpful relation with the farm and home life of the community supporting the school. Practice in planning and executing school farm problems and demonstrations. Ways and means by which the agricultural interests of a community can be promoted through the local schools. 3 hours lecture or report; 3 hours practice. Second half year, 3 units.

102. General Science and First-Year Agriculture. Teachers' Course.—The aim and values of a general science course in the high school, comparative study of typical courses, and exposition of the peculiar adaptations to the general science work of a beginning agriculture course in which plant study forms the basis of continuity. The materials and methods suited to such a course in the high school will be fully discussed. The nature and amount of practical work needed in the course, including field trips and excursions, outdoor and laboratory exercises, will be considered in detail, together with the equipment for the same. 3 hours. First half year, 3 units.

104. Agriculture in Secondary Schools.—A study of agricultural teaching in the high school, including its history, the teaching methods to be employed, and the equipment needed. A general consideration of the educational aims and values of the work and of the organization of the course is followed by a detailed study of materials and methods involved in the teaching of the various subjects of the agricultural courses; beginning agriculture, dairying, animal husbandry, horticulture, etc. Lectures, readings, and assigned practicums. 3 hours. Second half year. 3 units prerequisite.

115. Individual Study of Selected Topics in Agricultural Education.—Each half year. Time and credit to be arranged.

GRADUATE COURSES.

200. The Practice of Teaching Agriculture.—This course, if taken in connection with education 201, will satisfy the requirements in practice teaching for the high-school teacher's recommendation.

202. Special Studies in Agricultural Education.—Each half year. Time and credit to be arranged.

COURSES FOR RURAL TEACHERS AND OTHER RURAL LEADERS.

Twenty-two agricultural colleges report special departments, or, at least, specific courses for rural teachers. Others offer rural leadership courses for teachers and farmers. Of great importance to rural-school departments under agricultural-college direction is the positive industrial atmosphere and environment offered, not to mention the complete technical-practical equipment of such schools for successful industrial work.

Agricultural colleges with rural-school departments are not limited to any one special section of the country.

The department of rural education in the New York State College of Agriculture at Cornell University has, in the past, limited its work to conducting extension courses among teachers, to the publication of the Cornell Rural School Leaflet, and the holding of conferences for rural teachers. Strong courses have also been offered in rural economy and rural leadership, open to teachers and others.

Recently, however, the work of the department has been reorganized, so that at this time a professor of rural education offers courses in rural education, methods of teaching, types of rural schools, and practice work in teaching classes.

The Agricultural and Mechanical College at West Raleigh, N. C., offers three specific courses for rural teachers: A two-year course, a one-year course, and a two-weeks' spring course. The instruction is devoted chiefly to industrial work and reviews in the elementary subjects. The short course is intended for teachers already in the field who feel the need of more thorough preparation in the new subject matter. Courses are offered in school management, agriculture, nature study, school gardens, farm crops, farm animals, horticulture, soils, insects, poultry, and arithmetic, English, history, etc.

The College of Agriculture of the University of Nebraska, Lincoln, Nebr., maintains as one of its departments a secondary agricultural school which offers four-year courses in agriculture and in home-making, and a normal training course of two years open to students in the above courses, which covers the junior and senior years.

Dean E. A. Burnett makes the following comment on the value of this work for rural teachers:

About 50 per cent of the young women taking the home economics group take the normal training course, which prepares them for rural teachers with specially strong qualifications in domestic science and domestic art.

The young men graduating from the secondary school of agriculture are specially qualified as agricultural teachers for rural and village schools.

Forty per cent of the work of the young men is done in technical agriculture—agronomy, animal husbandry, dairy husbandry, horticulture, animal pathology, and manual-training work. This makes these young men especially proficient in agricultural subjects. The Normal training Law requires instruction in the five essentials

and the passage of a State examination qualifying the student for a second-grade certificate.

Graduates of the school of agriculture receive instruction for one semester in political economy and for one semester in rural economics; also for one year in farm management. No specific work is offered in rural sociology.

In regard to professional work in the college of agriculture proper, he says:

From one-third to one-half of the students graduating from the college of agriculture take special work in education and prepare to teach agriculture in the normal training high schools or in the Shumway schools, where manual training and agriculture are subsidized by the State. These men have opportunity to secure instruction in rural sociology, in addition to their instruction in political economy and commerce and in farm management and rural economics.

Women graduating from the college of agriculture secure four years of instruction in domestic science and domestic art, qualifying them as teachers or supervisors of this subject in city schools or colleges. In addition, they secure information in education qualifying them for a first-grade State certificate which, after one or two years of successful experience, entitles them to a life certificate in the State of Nebraska.

SUMMER SCHOOLS IN THE AGRICULTURAL COLLEGES.

Nineteen agricultural colleges report summer schools for rural and village teachers, and 11 others are expecting to inaugurate such courses by another year. Several of the schools make use of rural practice schools in these short courses and nearly all of them utilize practical demonstration work in laboratory and farm.

A good typical course of this is offered in the summer school of Purdue University, La Fayette, Ind. The plan of work comprises groups (1) for students who have not taken courses in these lines and (2) for students who have already spent one season in attendance or who have had equivalent training:

Group I. Plans of study for teachers taking up this kind of work for the first time. The aim is to give a general view such as is needed in introducing the work into the public schools.

Agriculture:

Required courses: Farm crops 2, soil studies 2, horticulture 2, dairying 2, animal husbandry 2, poultry 2.

Elective course: Mechanical drawing 2.

Home economics:

Required courses: Foods 2, sewing 2, general lectures and reports 2.

Home economics and agriculture:

Required courses: Foods 1, sewing 1, shop work and mechanical drawing 1.

Manual training and agriculture:

Required courses: Shop work and mechanical drawing 1, soil studies 1, horticulture 1, poultry 1.

Manual training:

Required courses: Shop work and mechanical drawing 2.

Manual training and home economics:

Required courses: Shop work and mechanical drawing 1, foods 1, sewing.

Group II. Plan of study for teachers who have had the antecedent work included in Group I above or its equivalent.

Agriculture:

Required courses: Soil studies 3, animal husbandry 3, horticulture 3, farm crops 3.

Home economics:

Required courses: Foods 3, sewing 3, house furnishings 3, hygiene and home nursing 3, laundry 3.

Manual training:

Required courses: Shop work and mechanical drawing 3.

Elective course: Cement work and farm machinery 3.

NOTE.—Courses numbered 1 indicate combination plans of study in Group I. Courses numbered 2 indicate full-time work in either agriculture, home economics, or manual training in Group I. Courses numbered 3 indicate the advanced or additional full-time work in Group II.

BULLETIN OF THE BUREAU OF EDUCATION.

[NOTE.—With the exceptions indicated, the documents named below will be sent free of charge upon application to the Commissioner of Education, Washington, D. C. Those marked with an asterisk (*) are no longer available for free distribution, but may be had of the Superintendent of Documents, Government Printing Office, Washington, D. C., upon payment of the price stated. Remittances should be made in coin, currency, or money order. Stamps are not accepted. Documents marked with a dagger (†) are out of print.]

1906.

- †No. 1. Education bill of 1906 for England and Wales as it passed the House of Commons. Anna T. Smith.
- †No. 2. German views of American education, with particular reference to industrial development. William N. Hailmann.
- *No. 3. State school systems: Legislation and judicial decisions relating to public education, Oct. 1, 1904, to Oct. 1, 1906. Edward C. Elliott. 15 cts.

1907.

- †No. 1. The continuation school in the United States. Arthur J. Jones.
- †No. 2. Agricultural education, including nature study and school gardens. James R. Jewell.
- †No. 3. The auxiliary schools of Germany. Six lectures by B. Maennel.
- †No. 4. The elimination of pupils from school. Edward L. Thorndike.

1908.

- †No. 1. On the training of persons to teach agriculture in the public schools. Liberty H. Bailey.
- *No. 2. List of publications of the United States Bureau of Education, 1867-1907. 10 cts.
- *No. 3. Bibliography of education for 1907. James Ingersoll Wyer, jr., and Martha L. Phelps. 10 cts.
- †No. 4. Music education in the United States; schools and departments of music. Arthur L. Manchester.
- *No. 5. Education in Formosa. Julean H. Arnold. 10 cts.
- *No. 6. The apprenticeship system in its relation to industrial education. Carroll D. Wright. 15 cts.
- *No. 7. State school systems: II. Legislation and judicial decisions relating to public education, Oct. 1, 1906, to Oct. 1, 1908. Edward C. Elliott. 30 cts.
- *No. 8. Statistics of State universities and other institutions of higher education partially supported by the State 1907-8. 5 cts.

1909.

- *No. 1. Facilities for study and research in the offices of the United States Government in Washington. Arthur T. Hadley. 10 cts.
- *No. 2. Admission of Chinese students to American colleges. John Fryer. 25 cts.
- *No. 3. Daily meals of school children. Caroline L. Hunt. 10 cts.
- †No. 4. The teaching staff of secondary schools in the United States; amount of education, length of experience, salaries. Edward L. Thorndike.
- No. 5. Statistics of public, society, and school libraries in 1908.
- *No. 6. Instruction in the fine and manual arts in the United States. A statistical monograph. Henry T. Bailey. 15 cts.
- No. 7. Index to the Reports of the Commissioner of Education, 1867-1907.
- *No. 8. A teacher's professional library. Classified list of 100 titles. 5 cts.
- *No. 9. Bibliography of education for 1908-9. 10 cts.
- No. 10. Education for efficiency in railroad service. J. Shirley Eaton.
- *No. 11. Statistics of State universities and other institutions of higher education partially supported by the State, 1908-9. 5 cts.

1910.

- *No. 1. The movement for reform in the teaching of religion in the public schools of Saxony. Arley B. Show. 5 cts.
- No. 2. State school systems: III. Legislation and judicial decisions relating to public education, Oct. 1, 1908, to Oct. 1, 1909. Edward C. Elliott.
- †No. 3. List of publications of the United States Bureau of Education, 1867-1910.
- *No. 4. The biological stations of Europe. Charles A. Kofoid. 50 cts.
- *No. 5. American schoolhouses. Fletcher B. Dresslar. 75 cts.
- †No. 6. Statistics of State universities and other institutions of higher education partially supported by the State, 1909-10.

1911.

- *No. 1. Bibliography of science teaching. 5 cts.
- *No. 2. Opportunities for graduate study in agriculture in the United States. A. C. Monahan. 5 cts.
- *No. 3. Agencies for the improvement of teachers in service. William C. Ruediger. 15 cts.
- *No. 4. Report of the commission appointed to study the system of education in the public schools of Baltimore. 10 cts.
- *No. 5. Age and grade census of schools and colleges. George D. Strayer. 10 cts.
- *No. 6. Graduate work in mathematics in universities and in other institutions of like grade in the United States. 5 cts.
- †No. 7. Undergraduate work in mathematics in colleges and universities.
- †No. 8. Examinations in mathematics, other than those set by the teacher for his own classes.
- No. 9. Mathematics in the technological schools of collegiate grade in the United States.
- †No. 10. Bibliography of education for 1909-10.
- †No. 11. Bibliography of child study for the years 1908-9.
- †No. 12. Training of teachers of elementary and secondary mathematics.
- *No. 13. Mathematics in the elementary schools of the United States. 15 cts.
- *No. 14. Provision for exceptional children in the public schools. J. H. Van Sickle, Lightner Witmer, and Leonard P. Ayres. 10 cts.
- *No. 15. Educational system of China as recently reconstructed. Harry E. King. 10 cts.
- †No. 16. Mathematics in the public and private secondary schools of the United States.
- †No. 17. List of publications of the United States Bureau of Education, October, 1911.
- *No. 18. Teachers' certificates issued under general State laws and regulations. Harlan Updegraff. 20 cts.
- No. 19. Statistics of State universities and other institutions of higher education partially supported by the State, 1910-11.

1912.

- *No. 1. A course of study for the preparation of rural-school teachers. F. Mutchler and W. J. Craig. 5 cts.
- †No. 2. Mathematics at West Point and Annapolis.
- *No. 3. Report of committee on uniform records and reports. 5 cts.
- *No. 4. Mathematics in technical secondary schools in the United States. 5 cts.
- *No. 5. A study of expenses of city school systems. Harlan Updegraff. 10 cts.
- *No. 6. Agricultural education in secondary schools. 10 cts.
- *No. 7. Educational status of nursing. M. Adelaide Nutting. 10 cts.
- *No. 8. Peace day. Fannie Fern Andrews. 5 cts. [Later publication, 1913, No. 12, 10 cts.]
- *No. 9. Country schools for city boys. William S. Myers. 10 cts.
- †No. 10. Bibliography of education in agriculture and home economics.
- †No. 11. Current educational topics, No. I.
- †No. 12. Dutch schools of New Netherland and colonial New York. William H. Kilpatrick.
- *No. 13. Influences tending to improve the work of the teacher of mathematics. 5 cts.
- *No. 14. Report of the American commissioners of the international commission on the teaching of mathematics. 10 cts.
- †No. 15. Current educational topics, No. II.
- †No. 16. The reorganized school playground. Henry S. Curtis.
- *No. 17. The Montessori system of education. Anna T. Smith. 5 cts.
- *No. 18. Teaching language through agriculture and domestic science. M. A. Leiper. 5 cts.
- *No. 19. Professional distribution of college and university graduates. Bailey B. Burritt. 10 cts.
- †No. 20. Readjustment of a rural high school to the needs of the community. H. A. Brown.
- †No. 21. Urban and rural common-school statistics. Harlan Updegraff and William R. Hood.
- No. 22. Public and private high schools.
- *No. 23. Special collections in libraries in the United States. W. D. Johnston and I. G. Mudge. 10 cts.
- †No. 24. Current educational topics, No. III.
- †No. 25. List of publications of the United States Bureau of Education, 1912.
- †No. 26. Bibliography of child study for the years 1910-11.
- No. 27. History of public-school education in Arkansas. Stephen B. Weeks.
- *No. 28. Cultivating school grounds in Wake County, N. C. Zebulon Judd. 5 cts.
- No. 29. Bibliography of the teaching of mathematics, 1900-1912. D. E. Smith and Chas. Goldsiber.
- No. 30. Latin-American universities and special schools. Edgar E. Brandon.
- *No. 31. Educational directory, 1912. 10 cts.
- *No. 32. Bibliography of exceptional children and their education. Arthur MacDonald. 5 cts.
- †No. 33. Statistics of State universities and other institutions of higher education partially supported by the State, 1912.

1913.

- No. 1. Monthly record of current educational publications, January, 1913.
- *No. 2. Training courses for rural teachers. A. C. Monahan and R. H. Wright. 5 cts.
- *No. 3. The teaching of modern languages in the United States. Charles H. Handschin. 15 cts.
- *No. 4. Present standards of higher education in the United States. George E. MacLean. 20 cts.
- †No. 5. Monthly record of current educational publications. February, 1913.

- *No. 6. Agricultural instruction in high schools. C. H. Robison and F. B. Jenks. 10 cts.
- *No. 7. College entrance requirements. Clarence D. Kingsley. 15 cts.
- *No. 8. The status of rural education in the United States. A. C. Monahan. 15 cts.
- †No. 9. Consular reports on continuation schools in Prussia.
- †No. 10. Monthly record of current educational publications, March, 1913.
- †No. 11. Monthly record of current educational publications, April, 1913.
- *No. 12. The promotion of peace. Fannie Fern Andrews. 10 cts.
- *No. 13. Standards and tests for measuring the efficiency of schools or systems of schools. 5 cts.
- *No. 14. Agricultural instruction in secondary schools. 10 cts.
- †No. 15. Monthly record of current educational publications, May, 1913.
- *No. 16. Bibliography of medical inspection and health supervision. 15 cts.
- *No. 17. A trade school for girls. A preliminary investigation in a typical manufacturing city, Worcester, Mass. 10 cts.
- *No. 18. The fifteenth international congress on hygiene and demography. Fletcher B. Dreeslar. 10 cts.
- *No. 19. German industrial education and its lessons for the United States. Holmes Beckwith. 15 cts.
- *No. 20. Illiteracy in the United States. 10 cts.
- †No. 21. Monthly record of current educational publications, June, 1913.
- *No. 22. Bibliography of industrial, vocational, and trade education. 10 cts.
- *No. 23. The Georgia club at the State Normal School, Athens, Ga., for the study of rural sociology. E. C. Branson. 10 cts.
- *No. 24. A comparison of public education in Germany and in the United States. Georg Kerschensteiner. 5 cts.
- *No. 25. Industrial education in Columbus, Ga. Roland B. Daniel. 5 cts.
- †No. 26. Good roads arbor day. Susan B. Sipe.
- †No. 27. Prison schools. A. C. Hill.
- *No. 28. Expressions on education by American statesmen and publicists. 5 cts.
- *No. 29. Accredited secondary schools in the United States. Kendric C. Babcock. 10 cts.
- *No. 30. Education in the South. 10 cts.
- *No. 31. Special features in city school systems. 10 cts.
- No. 32. Educational survey of Montgomery County, Md.
- †No. 33. Monthly record of current educational publications, September, 1913.
- *No. 34. Pension systems in Great Britain. Raymond W. Sies. 10 cts.
- *No. 35. A list of books suited to a high-school library. 15 cts.
- *No. 36. Report on the work of the Bureau of Education for the natives of Alaska, 1911-12. 10 cts.
- No. 37. Monthly record of current educational publications, October, 1913.
- *No. 38. Economy of time in education. 10 cts.
- No. 39. Elementary industrial school of Cleveland, Ohio. W. N. Hallmann.
- *No. 40. The reorganized school playground. Henry S. Curtis. 10 cts.
- *No. 41. The reorganization of secondary education. 10 cts.
- No. 42. An experimental rural school at Winthrop College. H. S. Browne.
- *No. 43. Agriculture and rural-life day; material for its observance. Eugene C. Brooks. 10 cts.
- *No. 44. Organized health work in schools. E. B. Hoag. 10 cts.
- No. 45. Monthly record of current educational publications, November, 1913.
- *No. 46. Educational directory, 1913. 15 cts.
- *No. 47. Teaching material in Government publications. F. K. Noyes. 10 cts.
- *No. 48. School hygiene. W. Carson Ryan, jr. 15 cts.
- No. 49. The Farragut School, a Tennessee country-life high school. A. C. Monahan and Adams Phillips.
- No. 50. The Fitchburg plan of cooperative industrial education. M. R. McCann.
- *No. 51. Education of the immigrant. 10 cts.
- *No. 52. Sanitary schoolhouses. Legal requirements in Indiana and Ohio. 5 cts.
- No. 53. Monthly record of current educational publications, December, 1913.
- No. 54. Consular reports on industrial education in Germany.
- No. 55. Legislation and judicial decisions relating to education, Oct. 1, 1909, to Oct. 1, 1912. James C. Boykin and William R. Hood.
- †No. 56. Some suggestive features of the Swiss school system. William Knox Tate.
- No. 57. Elementary education in England, with special reference to London, Liverpool, and Manchester. I. L. Kandel.
- No. 58. Educational system of rural Denmark. Harold W. Foght.
- No. 59. Bibliography of education for 1910-11.
- No. 60. Statistics of State universities and other institutions of higher education partially supported by the State, 1912-13.

1914.

- *No. 1. Monthly record of current educational publications, January, 1914. 5 cts.
- No. 2. Compulsory school attendance.
- *No. 3. Monthly record of current educational publications, February, 1914. 5 cts.
- No. 4. The school and the start in life. Meyer Bloomfield.

- No. 5. The folk high schools of Denmark. L. L. Friend.
No. 6. Kindergartens in the United States.
No. 7. Monthly record of current educational publications, March, 1914.
No. 8. The Massachusetts home-project plan of vocational agricultural education. R. W. Stimson.
No. 9. Monthly record of current educational publications, April, 1914.
*No. 10. Physical growth and school progress. B. T. Baldwin. 25 cts.
No. 11. Monthly record of current educational publications, May, 1914.
*No. 12. Rural schoolhouses and grounds. F. B. Dresslar. 50 cts.
No. 13. Present status of drawing and art in the elementary and secondary schools of the United States.
Royal B. Farnum.
No. 14. Vocational guidance.
No. 15. Monthly record of current educational publications. Index.
No. 16. The tangible rewards of teaching. James C. Boykin and Roberta King.
No. 17. Sanitary survey of the schools of Orange County, Va. Roy K. Flannagan.
No. 18. The public school system of Gary, Ind. William P. Burris.
No. 19. University extension in the United States. Louis E. Reber.
No. 20. The rural school and hookworm disease. J. A. Ferrell.
No. 21. Monthly record of current educational publications, September, 1914.
No. 22. The Danish folk high schools. H. W. Foght.
No. 23. Some trade schools in Europe. Frank L. Glynn.
No. 24. Danish elementary rural schools. H. W. Foght.
No. 25. Important features in rural school improvement. W. T. Hodges.
No. 26. Monthly record of current educational publications, October, 1914.
No. 27. Agricultural teaching.
No. 28. The Montessori method and the kindergarten. Elizabeth Harrison.
No. 29. The kindergarten in benevolent institutions.
No. 30. Consolidation of rural schools and transportation of pupils at public expense. A. C. Monahan.
No. 31. Report on the work of the Bureau of Education for the natives of Alaska.
No. 32. Bibliography of the relation of secondary schools to higher education. R. L. Walkley.
No. 33. Music in the public schools. Will Earhart.
No. 34. Library instruction in universities, colleges, and normal schools. Henry R. Evans.
No. 35. The training of teachers in England, Scotland, and Germany. Charles H. Judd.
No. 36. Education for the home—Part I. General statement. B. R. Andrews.
No. 37. Education for the home—Part II. State action, schools, agencies. B. R. Andrews.
No. 38. Education for the home—Part III. Colleges and universities. B. R. Andrews.
No. 39. Education for the home—Part IV. Bibliography, list of schools. B. R. Andrews.
No. 40. Care of the health of boys in Girard College, Philadelphia, Pa.
No. 41. Monthly record of current educational publications, November, 1914.
No. 42. Monthly record of current educational publications, December, 1914.
No. 43. Educational directory, 1914-15.
No. 44. County-unit organization for the administration of rural schools. A. C. Monahan.
No. 45. Curricula in mathematics. J. C. Brown.
No. 46. School savings banks. Mrs. Sara L. Oberholtzer.
No. 47. City training schools for teachers. Frank A. Manny.



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STATISTICS OF STATE UNIVERSITIES AND STATE COLLEGES,

For the Year Ended June 30, 1914.

This annual bulletin, formerly prepared and published by the National Association of State Universities, has been published by the Bureau of Education for the past six years. The data given are taken from reports received from the offices of the presidents of the various institutions, and the figures printed are substantially as given in those reports.

CHANGES IN COURSES AND METHODS OF INSTRUCTION.

Alabama Polytechnic Institute.—In September, 1914, entrance requirements will be 14 units. A course in wireless telegraphy is now offered.

University of Arizona.—A system of major subjects was established. A department of home economics has been organized.

University of Arkansas.—The department of education is now the school of education, coordinate with the colleges of agriculture, engineering, and liberal arts.

University of Colorado.—The department of preventive and experimental medicine was reorganized and strengthened. The following new graduate degrees have been recently authorized: Master of science in sanitary engineering, master of science in public health, and doctor of public health. The college of engineering now offers courses in railway civil engineering, railway electrical engineering, and railway mechanical engineering, each leading to the degree B. S.

Delaware College.—An affiliated college for women is to be opened in September, 1914.

Florida State College for Women.—In September, 1913, the entrance requirements were raised to 15 units.

University of Illinois.—The college of dentistry was reopened October 1, 1913.

Iowa State College of Agriculture and Mechanic Arts.—The following new lines of work have been added: Engineering extension and trade school work; veterinary investigations; department of structure design; and a department of farm management.

Maryland Agricultural College.—A course in agricultural education for teachers has been established; also a course in canning. A change from military to civilian system of government of students is announced.

Massachusetts Agricultural College.—A department of rural engineering has been established.

Mississippi Agricultural and Mechanical College.—A correspondence course in agriculture is now offered. The school of textile arts has been discontinued.

University of Mississippi.—Courses in domestic science and domestic art have been added in connection with the department of education, this department having been enlarged and housed in a new building.

Montana State College of Agriculture and Mechanic Arts.—The department of pharmacy has been discontinued. New four-year courses in architectural engineering, chemical engineering, and irrigation engineering have been established.

Directory of State universities and State colleges.¹

[Names in *italics* are institutions endowed by the Federal Government under the Morrill Acts.]

Location.	Name.	President.
Auburn, Ala.	Auburn University	Charles C. Trench, LL. D.
University, Ala.	University of Alabama	George H. Denny, LL. D.
Tucson, Ariz.	University of Arizona	R. B. von Klein Smid, A. M.
Fayetteville, Ark.	University of Arkansas	John H. Reynolds, LL. D.
Berkeley, Cal.	University of California	Benj. Ide Wheeler, LL. D.
Boulder, Colo.	University of Colorado	Livingston Farrand, LL. D.
Fort Collins, Colo.	University of Colorado	Chas. A. Lory, LL. D.
Golden, Colo.	University of Colorado	William O. Haldane, Sc. D., acting.
Greeley, Colo.	State Teachers College of Colorado	Zachariah X. Snyder.
Storrs, Conn.	Connecticut Agricultural College	Charles L. Beach, B. S.
Newark, Del.	Delaware College	Samuel C. Mitchell, Ph. D.
Gainesville, Fla.	University of Florida	Albert A. Murphree, LL. D.
Tallahassee, Fla.	Florida State College for Women	Edward Conradi, Ph. D.
Athens, Ga.	University of Georgia	David C. Barrow, LL. D., chancellor
Atlanta, Ga.	Georgia School of Technology	Kenneth G. Matheson, LL. D.
Dahlonega, Ga.	North Georgia Agricultural College	Gustavus R. Glenn, LL. D.
Honolulu, Hawaii.	College of Hawaii	Arthur L. Dean, Ph. D.
Moscow, Idaho.	University of Idaho	Malvin A. Brannon, Ph. D.
Urbana, Ill.	University of Illinois	Edmund J. James, LL. D.
Bloomington, Ind.	Indiana University	William L. Bryan, LL. D.
Lafayette, Ind.	Purdue University	Winthrop E. Stone, LL. D.
Ames, Iowa.	Iowa State College of Agriculture and Mechanic Arts	Raymond A. Farnum, LL. D.
Oder Falls, Iowa.	Iowa State Teachers College	Horner H. Searley, LL. D.
Iowa City, Iowa.	State University of Iowa	Thomas H. McBride, Ph. D.
Lawrence, Kans.	University of Kansas	Frank Strong, LL. D.
Manhattan, Kans.	Kansas State Agricultural College	Henry J. Waters, B. S. A.
Lexington, Ky.	State University of Kentucky	Henry S. Barker, LL. D.
Baton Rouge, La.	Louisiana State University and Agricultural and Mechanical College	Thomas D. Boyd, LL. D.
Orono, Me.	University of Maine	Robert J. Aley, LL. D.
College Park, Md.	Maryland Agricultural College	Harry J. Patterson, Sc. D.
Amherst, Mass.	Massachusetts Agricultural College	Kenyon L. Butterfield, LL. D.
Boston, Mass.	Massachusetts Institute of Technology	Richard C. Maclaurin, LL. D.
Ann Arbor, Mich.	University of Michigan	Harry B. Hutchins, LL. D.
East Lansing, Mich.	Michigan Agricultural College	Jonathan L. Snyder, LL. D.
Houghton, Mich.	Michigan College of Mines	Fred W. McNair, Sc. D.
Minneapolis, Minn.	University of Minnesota	George E. Vincent, LL. D.
Agricultural College, Minn.	Mississippi Agricultural and Mechanical College	George R. Hightower, B. S.
Columbus, Miss.	Mississippi Industrial Institute and College	Henry L. Whitfield.
University, Miss.	University of Mississippi	J. N. Powers, chancellor.
Columbia, Mo.	University of Missouri	Albert Ross Hill, LL. D.
Bozeman, Mont.	Montana College of Agriculture and Mechanic Arts	James M. Hamilton, M. S.
Butte, Mont.	Montana State School of Mines	Charles H. Bowman, M. S.
Missoula, Mont.	University of Montana	Edwin B. Craighead, LL. D.
Lincoln, Nebr.	University of Nebraska	Samuel Avery, LL. D., chancellor.
Reno, Nev.	University of Nevada	Archer W. Handrick, A. M.
Durham, N. H.	New Hampshire College of Agriculture and Mechanic Arts	Edward T. Fairchild, LL. D.
New Brunswick, N. J.	Rutgers College	Wm. H. S. Demarest, LL. D.
Albuquerque, N. Mex.	University of New Mexico	David M. Boyd, Ph. D.
Socorro, N. Mex.	New Mexico School of Mines	Fayette A. Jones, LL. D.
State College, N. Mex.	New Mexico College of Agriculture and Mechanic Arts	George E. Ladd.
Albany, N. Y.	New York State College for Teachers	A. R. Brubacher.
Ithaca, N. Y.	Cornell University	Jacob G. Schurman, LL. D.
Chapel Hill, N. C.	University of North Carolina	Edward K. Graham, LL. D.
Went Raleigh, N. C.	North Carolina College of Agriculture and Mechanic Arts	Denzil H. Hill, LL. D.
Agricultural College, N. Dak.	North Dakota Agricultural College	John H. Worst, LL. D.
University, N. Dak.	University of North Dakota	Frank L. McVey, Ph. D.
Athens, Ohio.	Ohio University	Alton Ellis, LL. D.
Columbus, Ohio.	Ohio State University	Wm. O. Thompson, LL. D.
Oxford, Ohio.	Miami University	Raymond M. Hughes, M. S.
Norman, Okla.	University of Oklahoma	Stratton D. Brooks, Ph. D.
Stillwater, Okla.	Oklahoma Agricultural and Mechanical College	J. H. Connell, M. S.
Wilburton, Okla.	Oklahoma State School of Mines and Metallurgy	Edward P. Barrett, Ph. D.
Corvallis, Oreg.	Oregon State Agricultural College	Wm. J. Kerr, Sc. D.
Eugene, Oreg.	University of Oregon	Prince L. Campbell, A. B.
State College, Pa.	Pennsylvania State College	Edwin E. Sparks, LL. D.

¹ Corrected to Jan. 6, 1913, in so far as changes have been reported to this bureau.

Directory of State universities and State colleges—Continued.

Location.	Name.	President.
San Juan, P. R.....	<i>University of Porto Rico.....</i>	Edward M. Bainter, B. S.
Kington, R. I.....	<i>Rhode Island State College.....</i>	Howard Edwards, LL. D.
Charleston, S. C.....	<i>The Citadel, the Military College of South Carolina.</i>	O. J. Bond, A. M., supt.
Clemson College, S. C.....	<i>Clemson Agricultural College.....</i>	Walter M. Riggs, E. M. S.
Columbia, S. C.....	<i>University of South Carolina.....</i>	Wm. S. Currell, Ph. D.
Brookings, S. Dak.....	<i>South Dakota State College of Agriculture and Mechanic Arts.</i>	Elwood C. Perisho, M. S.
Rapid City, S. Dak.....	<i>South Dakota State School of Mines...</i>	Cleophas C. O'Harra, Ph. D.
Vermilion, S. Dak.....	<i>University of South Dakota.....</i>	Robert L. Slagle, Ph. D.
Knoxville, Tenn.....	<i>University of Tennessee.....</i>	Brown Ayres, LL. D.
Austin, Tex.....	<i>University of Texas.....</i>	
College Station, Tex.....	<i>Agricultural and Mechanical College of Texas.</i>	W. B. Bixvell, D. C. L.
Logan, Utah.....	<i>Agricultural College of Utah.....</i>	John A. Widtsoe, Ph. D.
Salt Lake City, Utah.....	<i>University of Utah.....</i>	Joseph T. Kingsbury, Sc. D.
Burlington, Vt.....	<i>University of Vermont and State Agricultural College.</i>	Guy P. Benton, LL. D.
Blackburg, Va.....	<i>Virginia Polytechnic Institute.....</i>	J.
Charlottesville, Va.....	<i>University of Virginia.....</i>	E
Lexington, Va.....	<i>Virginia Military Institute.....</i>	E
Williamsburg, Va.....	<i>College of William and Mary.....</i>	L
Pullman, Wash.....	<i>State College of Washington.....</i>	E
Seattle, Wash.....	<i>University of Washington.....</i>	H
Morgantown, W. Va.....	<i>West Virginia University.....</i>	F
Madison, Wis.....	<i>University of Wisconsin.....</i>	C
Laramie, Wyo.....	<i>University of Wyoming.....</i>	C

TABLE 1.—The teaching force in State

Names of institutions.		Professors and instructors.					President's salary.	Maximum and minimum salaries.				
		Preparatory department.	Collegiate department.	Professional departments.	Total (excluding duplicates).			Deans.		Professors.		
					Men.	Women.		Total.	Maximum.	Minimum.	Maximum.	Minimum.
1	2	3	4	5	6	7	8	9	10	11	12	
51 New York State College for Teachers.	6	35	0	24	17	41	\$6,000	\$3,500	.....	\$2,600	\$1,800
52 Cornell University (N. Y.).....	.....	564	186	708	42	750	10,000	8,000	\$3,500	6,000	2,500
53 University of North Carolina...	.....	53	33	62	0	62	4,000	2,500	2,000	2,500	2,000
54 North Carolina College of Agriculture and Mechanic Arts.	.....	62	0	62	0	62	4,500	2,750	2,750	2,750	1,700
55 North Dakota Agricultural College.	53	56	0	55	10	65	5,400	3,600	3,000	3,200	1,800	
56 University of North Dakota...	.....	61	14	65	10	75	6,000	3,200	2,700	3,000	2,000
57 Ohio University.....	5	44	0	46	34	80	6,000	3,000	1,700	2,100	1,400	
58 Ohio State University.....	.....	316	12	276	52	328	7,000	5,000	3,250	3,500	2,000
59 Miami University (Ohio).....	.....	48	0	38	10	48	5,000	3,000	.....	2,500	2,000
60 University of Oklahoma.....	.....	45	90	117	6	123	7,500	4,000	2,000	2,200	1,700
61 Oklahoma Agricultural and Mechanical College.	6	67	0	61	12	73	6,500	2,750	2,000	2,000	1,200	
62 Oklahoma State School of Mines and Metallurgy.	.....	7	0	7	0	7	2,700	.....	.....	1,800	1,400
63 Oregon State Agricultural College.	.....	131	0	106	25	131	6,000	3,100	2,100	3,000	1,600
64 University of Oregon.....	.....	65	48	99	14	113	5,000	2,750	2,500	.....	.....
65 Pennsylvania State College.....	.....	226	0	214	12	226	9,000	5,000	1,300	3,000	1,800
66 University of Porto Rico.....	13	55	2	35	35	70	4,000	4,000	2,600	2,500	1,200	
67 Rhode Island State College....	.....	31	0	26	5	31	4,500	.....	.....	2,400	1,700
68 The Citadel, the Military College of South Carolina.	.....	15	0	15	0	15	3,000	.....	.....	2,000	1,700
69 Clemson Agricultural College (S. C.).	2	62	0	64	0	64	4,500	3,000	2,500	2,000	1,900	
70 University of South Carolina....	.....	34	3	34	3	37	3,500	2,500	2,000	2,000	2,000
71 South Dakota State College of Agriculture and Mechanic Arts.	2	42	1	34	10	44	3,750	2,100	.....	3,000	1,200
72 South Dakota State School of Mines.	3	10	0	12	1	13	2,800	.....	.....	1,950	1,450
73 University of South Dakota....	.....	45	6	39	12	51	4,500	2,750	2,250	1,930	1,780
74 University of Tennessee.....	.....	48	102	119	8	127	5,200	2,800	1,400	2,200	1,800
75 University of Texas.....	.....	136	35	147	24	171	5,000	4,000	3,500	3,250	2,500
76 Agricultural and Mechanical College of Texas.	.....	86	0	86	0	86	4,000	3,000	2,750	3,000	2,000
77 Agricultural College of Utah...	18	62	0	68	12	80	5,500	3,600	2,000	2,700	1,800	
78 University of Utah.....	.....	77	24	68	9	77	5,000	3,000	.....	2,500	1,800
79 University of Vermont and State Agricultural College.	.....	62	47	106	3	109	7,000	3,000	1,500	2,500	500
80 Virginia Polytechnic Institute.	.....	53	0	53	0	53	5,000	.....	.....	2,000	.....
81 University of Virginia.....	.....	47	28	73	0	73	8,000	.....	.....	3,300	2,000
82 Virginia Military Institute.....	.....	24	0	24	0	24	4,500	.....	.....	2,500	2,300
83 College of William and Mary (Va.).	7	15	0	19	0	19	2,760	2,000	.....	1,800	.....
84 State College of Washington...	11	108	1	98	22	120	6,000	3,000	1,900	3,000	1,800	
85 University of Washington.....	.....	177	20	152	25	177	6,000	3,000	2,000	3,000	1,800
86 West Virginia University.....	.....	90	12	96	6	102	4,500	3,200	2,200	2,700	2,200
87 University of Wisconsin.....	.....	492	31	465	58	523	7,000	5,000	3,000	4,000	2,800
88 University of Wyoming.....	17	53	0	52	18	70	4,500	3,000	.....	2,100	1,900

universities and State colleges—Continued.

Maximum and minimum salaries—Continued.												House in addition to salary.	
Associate professors.		Assistant professors.		Adjunct professors.		Instructors.		Assistants.		Tutors and others.		President.	Professors.
Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.		
13	14	15	16	17	18	19	20	21	22	23	24	25	26
.....	.....	\$1,800	\$1,500	.....	.....	\$1,400	\$800	\$800	\$800	\$100	\$75	No..	0 51
.....	.....	2,000	1,500	.....	.....	1,200	800	1,000	50	.....	.....	Yes.	2 52
\$1,750	\$1,500	1,250	1,000	.....	.....	1,000	500	.....	.....	.....	.....	Yes.	0 53
1,300	1,300	1,750	1,400	.....	.....	1,800	250	250	250	.....	.....	No..	1 54
2,100	1,900	2,100	1,400	.....	.....	1,500	900	500	200	.....	.....	No..	0 55
.....	.....	2,100	1,500	.....	.....	1,600	700	650	100	.....	.....	Yes.	0 56
1,500	1,500	1,500	1,200	.....	.....	1,400	900	1,100	500	500	360	Yes.	1 57
1,800	1,600	2,000	1,500	.....	.....	1,500	1,000	1,300	600	300	300	.....	58
1,900	1,500	1,400	1,000	.....	.....	900	600	300	200	.....	.....	.....	59
2,000	1,600	1,600	1,200	.....	.....	1,200	900	400	90	.....	.....	Yes.	0 60
1,800	1,600	.....	.....	.....	.....	1,800	720	600	400	.....	.....	No..	0 61
.....	.....	.....	.....	.....	.....	1,200	1,200	.....	.....	.....	.....	Yes.	0 62
2,100	1,800	1,800	1,400	.....	.....	1,500	900	900	500	.....	.....	No..	1 63
1,600	1,400	.....	.....	\$1,200	\$600	.....	.....	.....	.....	.....	.....	No..	64
2,250	1,200	2,300	1,050	1,500	900	1,300	600	.....	.....	.....	.....	Yes.	12 65
.....	.....	1,500	1,100	.....	.....	1,200	900	1,200	250	.....	.....	Yes.	3 66
.....	.....	1,600	1,500	.....	.....	1,500	800	.....	.....	.....	.....	.....	67
.....	.....	1,200	1,000	.....	.....	540	.....	.....	.....	.....	.....	Yes.	2 68
1,700	1,700	1,500	1,500	.....	.....	1,200	900	1,200	800	.....	.....	Yes.	5 69
1,500	1,500	.....	.....	1,200	1,200	1,200	800	400	300	.....	.....	Yes.	8 70
1,800	1,200	1,500	1,200	.....	.....	1,600	600	1,500	600	.....	.....	Yes.	0 71
.....	.....	.....	.....	.....	.....	1,200	1,000	.....	.....	.....	.....	.....	72
.....	.....	1,500	1,200	.....	.....	1,150	750	600	300	150	120	No..	0 73
1,800	1,400	1,500	1,200	.....	.....	1,200	600	600	80	.....	.....	Yes.	0 74
2,500	2,000	.....	.....	2,000	1,700	1,700	900	350	100	800	500	No..	0 75
2,250	1,600	1,600	1,300	.....	.....	1,300	1,000	900	300	.....	.....	Yes.	22 76
2,100	1,800	1,800	1,200	.....	.....	1,400	800	600	200	.....	.....	Yes.	2 77
2,100	1,750	1,700	1,300	.....	.....	1,250	.....	.....	.....	.....	.....	No..	0 78
.....	.....	2,000	600	.....	.....	1,400	50	.....	.....	550	150	Yes.	0 79
1,450	1,200	.....	.....	.....	.....	1,200	800	850	125	.....	.....	Yes.	2 80
2,500	2,000	.....	.....	1,900	1,200	1,200	600	500	100	300	100	.....	81
1,800	.....	900	.....	1,200	.....	.....	.....	.....	.....	.....	.....	Yes.	3 82
.....	.....	1,000	800	1,200	.....	.....	.....	.....	.....	.....	.....	Yes.	0 83
1,700	1,600	1,600	1,200	.....	.....	1,200	900	900	500	.....	.....	Yes.	0 84
2,300	1,700	2,100	1,400	.....	.....	1,650	800	900	200	450	100	Yes.	0 85
2,400	1,700	1,800	1,300	.....	.....	1,500	900	900	700	500	100	Yes.	0 86
3,000	2,200	2,000	1,600	.....	.....	1,500	1,000	600	400	.....	.....	Yes.	4 87
.....	.....	1,800	1,400	.....	.....	1,700	900	860	680	400	100	Yes.	0 88

TABLE 2.—Student enrollment in State universities and State colleges.

Names of institutions.	Regular term enrollment.										Enrolled in 1913 summer school.		Enrolled in other short courses.		In professional departments.						
	Preparatory department.		College department.		Graduate department.		Professional departments.		All other students.		Total (excluding duplicates).		Men.	Women.	Med.	Dentistry.	Law.	Medicine.	Pharmacy.		
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Alabama Polytechnic Institute.....			786	15	19	0	45	0	0	0	15	820	84	4				0	0	0	45
University of Alabama.....			404	71	6	1	247	0	0	0	72	726	177	384				144	94	0	9
University of Arizona.....	28	18	128	71	1	2	0	0	0	0	92	169	0	0				0	0	0	0
University of Arkansas.....			372	190	3	3	165	2	25	73	226	810	47	85				72	95	0	0
University of California.....			2,901	1,782	404	303	612	31	88	113	2,203	5,928	783	1,580				0	0	0	0
University of Colorado.....			616	406	40	36	155	8	0	0	447	1,266	153	225				82	59	0	22
Colorado State Agricultural College.....			360	170	3	1	0	0	242	202	706	1,078	8	10				0	0	0	0
Colorado School of Mines.....			209	0	11	0	0	0	0	0	209	0	0	0				0	0	0	0
State Teachers College of Colorado.....			55	580	0	0	0	0	76	16	580	635	125	785				0	0	0	0
			145	3	0	0	0	0	0	0	19	239	6	32				0	0	0	0
			169	0	0	0	0	0	0	0	0	169	40	127				0	0	0	0
	42	0	210	0	8	0	77	0	0	0	0	337	0	0				77	0	0	0
	0	277	0	167	0	12	0	0	0	0	456	456	1	60				0	0	0	0
			510	0	28	8	114	0	0	0	8	660	179	371				92	0	0	23
	78	0	635	0	0	0	0	0	44	0	22	757	142	0				0	0	0	0
	110	10	100	12	0	0	0	0	0	0	87	121	0	0				0	0	0	0
			18	6	4	0	0	0	12	81	34	121	0	0				0	0	0	0
			230	143	7	0	28	0	18	55	199	479	29	172				25	0	0	0
			2,910	828	242	43	856	41	106	69	981	5,064	546	279				108	445	89	266
			802	709	111	58	247	4	172	196	1,332	2,299	592	491				116	135	0	0
			1,036	152	25	8	51	4	26	20	1,786	1,929	84	134				0	0	0	54
and Me-			1,707	485	21	5	0	0	297	71	1,396	2,459	98	123				0	0	0	0
	193	324	269	1,328	0	0	0	0	0	0	1,712	2,174	163	1,374				0	0	0	0
			906	720	125	44	806	117	0	0	754	2,270	205	221				203	114	246	60
			1,171	739	73	54	266	33	0	0	826	2,336	245	262				185	129	0	65
			956	642	31	33	0	0	516	254	1,503	2,432	103	267				0	0	0	0
	14	0	606	110	19	6	100	0	109	63	179	1,027	191	28				100	0	0	0
Agricultural			534	89	29	7	48	0	49	12	108	768	394	292				48	0	0	0

TABLE 2.—Student enrollment in State universities and State colleges—Continued.

Names of institutions.	Regular term enrollment.										Enrolled in 1918 summer school.		Enrolled in other short courses.		In professional departments.				
	Preparatory department.		College department.		Graduate department.		Professional department.		All other students.		Total (excluding duplicates).		Men.	Women.	Law.	Medicine.	Dentistry.	Pharmacy.	
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.	Total.								
												Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.
I	43	31	156	86	8	2	0	0	235	57	449	178	627	0	0	0	0	0	0
of Agriculture	34	4	44	1	0	0	0	0	14	49	78	5	83	101	26	0	0	0	0
Mines			168	95	4	4	112	0	0	0	298	151	449	0	0	0	0	0	0
			404	126	4	3	406	9	0	0	811	141	952	83	9	90	22	43	16
State of Texas.			1,098	723	41	32	577	59	0	0	1,716	814	2,530	0	0	360	313	0	63
	226	113	297	152	20	3	0	0	23	0	538	266	805	2	0	0	0	0	0
State Agricultural	98	54	651	394	32	8	126	2	0	0	749	658	1,407	219	584	73	57	0	0
			359	122	0	1	118	0	4	11	461	134	615	0	0	0	118	0	0
			423	0	12	0	0	0	93	0	527	0	527	0	0	0	0	0	0
			521	0	50	0	375	0	0	0	919	0	919	273	947	271	104	0	0
(Va.)			381	0	0	0	0	0	0	0	381	0	381	0	0	0	0	0	0
	84	0	153	0	0	0	0	0	0	0	237	0	237	80	0	0	0	0	0
	192	65	558	250	23	13	5	0	55	44	810	359	1,169	130	120	117	33	0	0
			1,131	943	76	78	161	15	224	110	1,592	1,145	2,737	183	479	73	0	116	0
			449	147	14	15	70	4	29	123	580	274	834	187	302	104	0	54	20
			2,865	1,124	306	129	273	14	4	66	3,358	1,328	4,686	1,300	855	628	5	169	83
	23	23	64	92	9	5	0	0	14	27	110	147	257	30	119	3	2	0	0

TABLE 3.—*Property and income of State*

¹ Includes appropriations for experiment stations, farmers' institutes, and extension work.
² Not including coal lands valued at over \$1,000,000.

universities and State colleges.

Income from—							Analysis of State appropriations.			
Student fees, excluding board and room rent.	Productive funds.	The State. ¹	United States Government.	Private donations.	All other sources.	Total working income.	Mill tax rate.	Receipts from mill tax.	Appropriation for current expenses. ¹	For building and permanent improvements.
7	8	9	10	11	12	13	14	15	16	17
813,798	\$21,440	890,806	657,500	.....	\$19,008	\$202,728	.....	.....	\$79,006	\$11,200
40,155	62,898	95,000	0	.....	4,508	202,558	.....	.....	50,000	45,000
3,800	28,080	123,900	80,000	.....	6,788	243,084	.....	.....	113,900	10,000
12,000	3,480	145,750	66,363	.....	6,000	233,593	.....	.....	145,750	.....
144,685	239,008	1,574,376	80,000	\$191,421	269,973	2,499,457	.....	.....	253,513	1,290,863
44,615	.....	239,000	0	22,000	.....	305,615	.....	\$164,000	75,000	.....
8,428	12,641	113,362	80,000	.....	30,123	244,554	.....	82,085	31,327	.....
26,831	.....	82,790	0	.....	8,616	120,287	.....	82,790	.....	.....
46,805	.....	88,131	.....	.....	2,822	138,536	.....	81,881	5,250	.....
8,968	8,810	142,500	65,000	.....	35,980	257,278	.....	.....	103,000	39,500
540	4,980	15,000	70,000	86,000	16,121	192,641	.....	.....	.....	.....
4,408	9,677	99,000	55,000	1,750	1,274	171,109	.....	.....	00	55,000
11,100	1,975	48,250	0	.....	.....	61,325	.....	.....	50	.....
18,470	28,232	166,750	23,323	13,250	.....	250,126	.....	.....	50	.....
42,991	.....	80,000	0	.....	550	123,541	.....	.....	00	.....
1,550	.....	21,500	0	.....	2,000	25,050	.....	.....	00	.....
250	.....	12,286	60,000	.....	1,819	64,155	.....	.....	00	2,286
5,000	57,108	97,950	80,000	.....	12,061	262,119	.....	.....	50	10,900
240,452	32,463	2,286,500	80,000	.....	184,637	2,624,053	1	2,250,000	00	.....
54,000	44,933	278,757	0	.....	575	378,205	1/4	.....	25	.....
80,339	17,550	433,389	80,000	6,359	169,764	787,401	1/4	278,828	76	27,485
66,764	35,192	979,467	80,000	2,325	84,904	1,250,652	1/4	348,362	01	134,204
23,521	.....	290,241	0	.....	8,226	322,087	1/4	65,191	225,150	.....
143,472	71,452	725,454	0	.....	2,116	942,494	1/4	143,021	494,933	82,500
49,614	7,319	575,500	0	.....	.....	.....	.....	.....	510,500	65,000
21,617	25,614	564,536	80,000	.....	179,377	871,144	.....	.....	544,536	20,000
2,000	8,544	189,500	72,750	.....	10,000	282,994	1/4	54,500	135,000	.....
15,967	14,556	132,000	58,898	40,000	20,841	283,262	.....	.....	122,000	10,000
50,079	9,915	192,250	80,000	.....	59,262	391,526	.....	.....	121,000	71,250
.....	5,797	36,000	70,000	.....	23,168	134,980	.....	.....	36,000	.....
6,909	10,613	311,903	63,333	.....	75,280	467,988	.....	.....	256,000	55,903
385,575	126,054	100,000	16,667	13,769	52,348	604,413	.....	.....	100,000	.....
427,522	57,746	1,363,835	0	41,139	267,618	3,177,960	1	1,029,000	9,000	326,235
36,790	71,325	228,800	80,000	.....	148,372	565,287	1/4	.....	.....	.....
14,722	.....	65,000	0	.....	5,784	85,506	1/4	.....	65,000	.....
283,206	62,196	2,362,254	80,000	.....	189,449	2,907,107	1/4	369,340	1,085,714	897,200
12,642	14,887	231,621	55,818	.....	135,479	449,847	.....	.....	183,704	47,617
20,614	9,388	78,000	0	.....	725	106,737	.....	.....	67,500	8,500
12,336	42,000	54,550	0	.....	7,200	116,086	.....	.....	37,250	17,300
75,194	73,073	973,500	76,874	211,000	50,342	1,459,963	.....	.....	544,500	329,000
7,983	51,719	96,450	80,000	.....	13,909	250,061	.....	.....	96,450	.....
787	.....	32,500	0	.....	.....	32,287	.....	.....	32,500	.....
9,872	.....	159,665	0	250	127	169,414	.....	.....	159,665	.....
77,857	48,153	631,462	80,000	.....	167,204	1,004,706	1	437,742	183,760	10,000
1,941	14,308	92,760	79,291	.....	4,523	192,823	1/4	75,010	17,750	.....
10,660	40,520	77,686	80,000	184	65,631	274,961	.....	.....	24,647	58,039
28,472	44,628	70,547	80,000	114,503	67,758	405,908	.....	.....	59,978	10,569
975	8,228	53,877	0	.....	316	70,767	.....	.....	53,877	.....
513	.....	24,391	.....	.....	1,464	26,368	.....	.....	24,392	.....
2,062	0	33,723	80,000	0	7,591	123,376	.....	.....	33,723	.....
7,500	.....	100,000	0	.....	.....	107,500	.....	.....	90,000	10,000
535,346	644,637	765,245	77,000	4,378,103	346,596	8,744,928	.....	.....	491,094	274,151
46,643	11,195	145,000	0	3,828	30,361	237,027	.....	.....	95,000	50,000
24,654	7,500	136,000	63,500	.....	34,753	265,407	.....	.....	85,000	80,000
13,950	70,798	120,324	80,000	.....	9,950	304,019	1/4	59,324	70,000	.....
19,818	60,203	159,747	0	.....	12,998	252,766	1/4	96,911	55,896	7,141
25,143	13,135	214,449	0	.....	26,022	278,819	1/4	99,467	80,734	44,248
144,035	57,896	953,293	50,000	205	78,298	1,283,727	1/4	378,088	199,363	375,942

¹ Does not include \$10,000 from the city.

TABLE 3.—Property and income of State

Names of institutions.		Property.				
		Bound vol- umes in libraries.	Value of library, scientific apparatus, machinery, and fur- niture.	Value of grounds (including farm).	Value of buildings.	Endow- ment funds.
1		2	3	4	5	6
59	.....	42,168	\$150,000	\$55,000	\$537,000	\$115,315
60	.....	22,296	126,808	76,000	426,000	.....
61	ham-	17,165	262,089	50,000	526,900	.....
62	and	1,200	70,000	1,500	114,000	.....
63	.....	28,300	301,018	403,500	802,798	202,114
64	.....	51,000	193,393	300,000	468,000	5,500
65	.....	54,270	456,225	63,107	1,648,417	592,913
66	.....	8,000	112,290	50,805	177,288	9,591
67	.....	20,926	187,278	14,855	320,476	50,000
68	ge of	6,000	25,000	.....	30,000	.....
69	C.)..	18,480	370,933	118,600	681,475	153,539
70	.....	50,000	150,000	420,000	475,000	.....
71	Agri-	17,714	75,000	70,000	400,000	257,844
72	nes..	4,400	30,000	15,000	85,000	.....
73	.....	25,000	180,000	50,000	415,000	.....
74	.....	38,600	234,540	527,000	434,500	405,000
75	.....	99,816	592,637	142,500	1,332,399	2,505,000
76	Alago	3,415	113,000	48,320	1,075,200	209,000
77	.....	27,200	165,000	23,200	500,000	143,080
78	.....	38,787	213,500	36,500	658,900	.....
79	State	90,000	315,000	75,000	1,117,000	1,060,076
80	.....	20,000	150,000	79,200	500,000	344,312
81	.....	80,000	832,638	600,000	1,245,078	2,119,174
82	.....	12,000	36,000	25,000	400,284	21,200
83	.....	17,000	45,000	50,000	150,000	151,327
84	.....	39,351	267,586	118,900	1,109,689	737,940
85	.....	65,216	634,450	1,000,000	900,675	5,000,000
86	.....	49,000	150,000	250,000	625,000	115,104
87	.....	207,016	936,426	2,077,911	3,724,356	679,084
88	.....	35,000	280,000	110,000	371,500	60,852

¹ This amount received from the U. S. Department of Agriculture and duplicated by the State, the funds being for the maintenance of cooperative extension work.

² Special appropriation for buildings, equipment, and improvements, for biennium ending Dec. 31, 1914.

³ Not including \$767 from the city.

⁴ Fertilizer tax.

universities and State colleges—Continued.

Income from—							Analysis of State appropriations.			
Student fees, excluding board and room rent.	Productive funds.	The State.	United States Government.	Private benefactions.	All other sources.	Total working income.	Mill tax rate.	Receipts from mill tax.	Appropriation for current expenses.	For building and permanent improvements.
7	8	9	10	11	12	13	14	15	16	17
\$19,136	\$8,331	\$150,938	0	\$6,322	\$691	\$185,418	11 1/2	\$111,495	\$39,443	.....
15,334	56,413	206,450	0	0	0	278,197	.....	.....	157,500	\$48,950
4,415	.....	177,500	\$61,167	0	19,368	262,450	.....	.....	177,500	.....
0	0	25,000	0	0	0	25,000	.....	.....	25,000	.....
27,886	13,041	572,547	80,000	8,560	10,700	712,734	.....	.....	323,547	\$249,000
9,480	6,299	190,000	0	0	0	207,979	.....	.....	190,000	.....
64,570	30,000	535,690	80,000	0	116,233	826,493	.....	.....	388,444	147,246
188	.....	101,663	50,000	1,713	3,162	156,726	.....	.....	101,663	.....
5,035	2,500	32,500	80,000	.....	13,846	133,881	.....	.....	30,000	2,500
34,290	.....	37,600	0	.....	4,303	\$76,193	.....	.....	33,200	4,400
4,850	9,266	276,000	55,000	0	9,095	354,211	(*)	276,000	.....	.....
14,343	.....	138,532	0	.....	9,574	162,449	.....	.....	82,449	56,083
11,155	33,810	117,477	80,000	.....	51,136	293,578	.....	.....	100,477	17,000
2,100	3,300	30,500	0	0	0	35,900	.....	.....	30,500	.....
12,800	8,670	123,000	0	0	1,116	145,586	.....	.....	108,000	15,000
60,138	26,064	78,862	68,000	4,000	25,689	262,773	(*)	78,862	.....	.....
35,445	176,367	658,300	0	100	1,174	871,386	.....	.....	658,300	.....
3,858	6,150	251,050	70,000	.....	26,075	357,133	.....	.....	243,550	7,500
9,821	12,121	109,580	80,000	700	9,631	221,853	(*)	65,830	32,250	11,500
15,471	35,645	225,442	0	.....	3,472	292,894	(*)	150,898	29,184	45,360
52,195	46,036	56,267	80,000	12,144	24,125	270,767	.....	.....	56,267	.....
24,509	20,659	123,917	63,333	.....	64,442	296,860	.....	.....	77,917	46,000
82,651	74,596	114,950	0	136,365	24,276	432,838	.....	.....	114,950	.....
16,312	1,266	46,250	0	500	23,663	87,991	.....	.....	41,250	5,000
5,311	8,132	40,000	0	0	991	54,434	.....	.....	40,000	.....
18,545	52,000	344,153	80,000	0	54,854	449,552	(*)	271,565	72,588	.....
68,664	1,250	531,324	0	0	0	601,238	(*)	531,324	.....	.....
25,222	6,000	219,000	70,000	0	7,335	327,557	.....	.....	199,000	20,000
441,170	36,582	2,153,856	80,000	12,721	245,146	2,969,475	.....	1,379,938	430,351	343,567
4,464	8,601	78,141	80,000	2,517	3,535	177,187	.....	73,141	5,000	.....

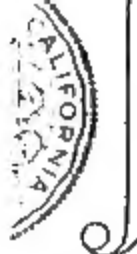
* 2 1/2 per cent of gross revenue of the State.

* 7.94 per cent of income from tax of 4 1/2 mills on the dollar.

* 18.04 per cent of income from tax of 4 1/2 mills on the dollar.

* A little less than one-third of 1 mill.

* A little less than one-half of 1 mill.



THE UNIVERSITY OF CALIFORNIA



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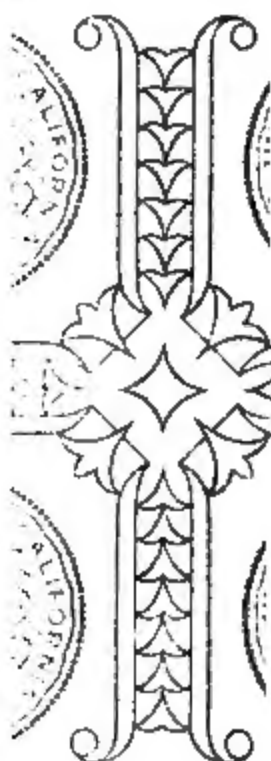
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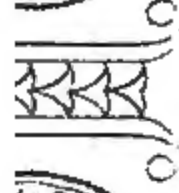
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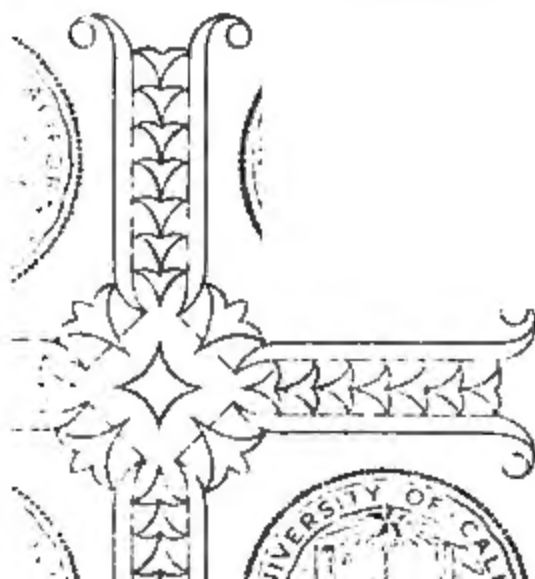
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